Sustainability in the South African Wine Industry

Status, Opportunities and Challenges

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CENTRE FOR BUSINESS AND DEVELOPMENT STUDIES
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SUSTAINABILITY IN THE SOUTH AFRICAN WINE INDUSTRY: STATUS, OPPORTUNITIES AND CHALLENGES

Reena das Nair, Shingie Chisoro and Stefano Ponte

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Executive summary

Objectives and approach

South Africa has been a pioneer in developing a variety of sustainability programmes and initiatives from farm to bottle, placing it at the forefront of sustainability in the global wine industry. In addition to global sustainability standards, such as Fairtrade and organics, and standards applied by retailers in the Global North, domestic sustainability initiatives and regulations have also been developed since the late 1990s.

The existence of sustainability initiatives however does not automatically entail that they are easing the local environmental impacts of viticulture and winemaking, that working conditions are necessarily improving, or that there has been more inclusive participation and ownership by historically disadvantaged persons (HDPs).

In this working paper, we unpack whether, how and to what extent different demands and initiatives on sustainability are reshaping the functioning of the wine industry in South Africa and with what benefits for whom.

We examine the various sustainability programmes and initiatives in South African wine and assess the implications for costs, investments and profitability of actors in the value chain. Furthermore, to provide a sense of how South Africa fares in the international arena, we also undertake a comparison with sustainability initiatives in the Italian wine industry.

We frame sustainability initiatives in broad terms, covering environmental, social and economic sustainability. The growing effects of climate change globally demand that grape growers adapt from an environmental perspective. The pressure for social sustainability emanates from the highly skewed patterns of ownership by HDPs, legacies of racialised inequalities, and a tainted history of poor worker conditions on farms and cellars. We also cover economic sustainability, as it both affects and is affected by environmental and social sustainability initiatives and is critical for the future of commercial production.

The research results presented here are part of a larger project funded by the Danish Independent Research Fund Denmark (Project #0133-00046B) on 'Power and inequality in global production systems' (PIPS) that also covers industrial fisheries in South Africa and the salmon and wine industries in Chile (with Stefano Ponte as the PI). This paper is focused on presenting the main empirical findings of this part of the project and is targeted at a broad audience. It is built on feedback we received on an earlier version that was discussed with South African industry actors at a webinar on 28 June 2023. More analytical and theoretical publications will follow in selected academic journals.

Three kinds of sustainability governance

We map the various sustainability initiatives that together constitute sustainability governance in the South African wine industry. We draw distinctions between horizontal, vertical top-down and vertical bottom-up initiatives.

Horizontal sustainability governance refers to initiatives that are driven by industry associations, civil society groups and/or government.

Vertical top-down sustainability governance relates to the demands that are placed by global and local buyers and retailers on their suppliers to address social and environmental challenges.

Vertical bottom-up sustainability governance is built around individual sustainability initiatives undertaken proactively by individual wine companies.

These categories are not necessarily mutually exclusive, as some operators may be active in different initiatives at the same time.

Methods and sources

We draw from extensive interviews with wine industry stakeholders in South Africa. We carried out 84 interviews (of which 12 online) with 94 people in 76 entities in 2022. Interviewees included representatives of government, industry associations, NGOs, research institutions, media, logistics companies, and 44 direct wine value chain entities (private cellars, estates, producer wholesalers, producer cellars, wholesalers, distributors and retailers). We also draw from secondary documentary and statistical evidence, and from participant observation and the attendance of industry seminars (12 seminars and 33 presentations) at the CapeWine 2022 trade fair.

For our international comparisons, we draw from primary data collected by one of the co-authors in 2022 and 2023 in Italy through semi-structured interviews with a total of 68 industry operators. Our assessment also includes participant observation, visual inspection of exhibition stands, informal conversations and attendance of seminars at the Vinitaly 2022 and ProWein 2023 trade fairs.

Horizontal sustainability governance

The South African wine industry is replete with horizontal sustainability governance initiatives, including the Integrated Production of Wine (IPW), WWF Conservation Champions, Carbon Heroes, Old Vines Project, Wine and Agricultural Ethical Trading Association (WIETA) and Black Economic Empowerment (BEE)/transformation initiatives through South African Wine Industry Transformation Unit (SAWITU).

WIETA and BEE/transformation initiatives seek to address the past and current exploitation of labour on farms and exclusion of black entrepreneurs in land ownership and wine production. The remaining initiatives focus on integrated production, environmental sustainability and climate change issues, which are becoming important for retailers and translating into new requirements or information requests such as on carbon footprint, water and energy consumption, lighter glass bottles and sustainable packaging materials.

Horizontal governance initiatives have provided a variety of conservation and ethical trade standards that are attuned to the industry's local realities and history. However, the industry lags behind on carbon footprint efforts, and transformation processes have had very limited results. In relation to carbon footprint initiatives, as of 2022, only 39 of around 536 cellars had

completed the carbon footprint exercise, while only 17 farms of around 2,613 producers had done so. This is for a number of reasons, including producers/farmers' limited understanding of carbon footprint, and the lack of domestic regulatory push. The relatively small size of many farms further means that they have no administrative personnel to tend to these administratively demanding tasks.

Transformation initiatives have by and large also failed to help build a significant cadre of black entrepreneurs that own vineyards and winemaking/cellar facilities. Black farmers account for only 2.5 – 2.7% of the total area planted with wine grapes while eighty per cent of wine farms are still in the hands of white men. This also speaks to the slow pace in government's land reform to transfer land to historically disadvantages persons. Downstream in the value chain, the proportion of wineries owned by black entrepreneurs is also very small. When co-ownership has been set up, it has involved a relatively small number of wealthy black capitalists although the 'virtual winery' model appears to be gaining some momentum as a mode of entry (see below). Of the total industry wine sales, black-owned brands account for less than 3%. The main challenges in moving the transformation agenda forward include the substantial capital investments in land, infrastructure and cellar facilities. Driven by the government's BEE policy, more visible instances have focused on direct preferential procurement from BEE suppliers by some South African retailers, and the provision of training, upskilling and educational opportunities.

Vertical top-down sustainability governance

The common vertical top-down demands on sustainability placed by domestic and global retailers include wine that has Fairtrade, organic and/or biodynamic certification, and increasing interest in carbon footprint information and recyclable or 'greener' forms of packaging. While some of these are still fairly niche presently, they are becoming more important in specific export markets.

Many of the current vertical top-down demands for sustainability have been driven by the alcohol monopolies of the Nordic countries (Sweden, Finland, Norway) and some Canadian states (Quebec, Ontario). Other retailers (and especially those based in the UK) and some domestic retailers in South Africa, are also starting to place similar demands on suppliers.

Meeting vertical top-down sustainability demands is necessary for South African wine producers to access markets. However, these require upfront investment costs. The proliferation of standards and different buyers requiring different certifications also means that to diversify markets, producers must invest in multiple standards, further adding to costs in an environment where retailers are not willing to pay appropriate premiums.

The downward pressure on wine purchase prices by retailers limits the ability to invest in standards and works against the industry's premiumisation strategy. South Africa is struggling to grow its wine export volumes and to shake off its image as a low-value, bulk wine producer. This situation persists despite substantial sustainability investments by South African grape and wine producers and is perpetuated by large buyers not willing to pay a premium to support such investments.

Similarly, the growing demand for organic wines in some markets presents supply opportunities but has not so far generally materialised into financial benefits for farmers and producers. The costs of organic certification are high, and the process of certification is administratively demanding, yet retailers are not paying an appropriate premium to cover for these costs.

Vertical bottom-up sustainability governance

Many of the companies we interviewed have historically played a pioneering role in attempting to tackle sustainability issues. However, they do not constitute a representative sample and thus should be seen as a vanguard in the wine industry in South Africa, not the mainstream.

We develop a unique typology that identifies wine value chain operators according to their sustainability actions and the related discourses they use in framing their activities. We distinguish between operators that are: pro-active (broad sustainers, regenerators, social transformers, nature conservators, wealthy sustainers, and climate risk managers), reactive (sustainability reactors) and inactive (ostriches).

Many of the initiatives these players carry out focus on environmental sustainability, and especially on biodiversity conservation – in view of increasing resilience to climate change and improving the long-term vitality and health of soils.

Others focus on social/transformation initiatives meant to address the living and working conditions of farm workers and/or expanding the ownership possibilities of HDPs through BEE deals. The latter initiatives have included the spin-off of vineyards to farm workers, with mixed results.

Finally, some of these initiatives are carried out by wealthier operators who do not need to worry too much about profitability in wine (as they may have other economic activities or operate in the wine sector for personal prestige reasons), or by mavericks who can embed their approaches into a framework of uniqueness and high quality – mostly for elite domestic and international markets.

Challenges

In relation to sustainability, we identify some key challenges that need to be addressed in the South African wine industry:

- efforts to measure and contain carbon emissions are still tentative and may create problems if the EU decides to apply carbon adjustment measures at the border for imports;
- labour conditions are still problematic and lead to regular media and civil society exposure, although more attention is now being paid to these issues in other producing countries as well;
- the degree of transformation within the industry is still very limited, especially in relation to ownership of land and other productive assets despite various policy efforts to improve inclusion of HDPs – including through the land reform and BEE policies;
- organic and biodynamic wines are still a very small proportion of the total in South Africa, in a context of growing interest for them;

- bulk wine exports are not yet allowed to receive the South African Sustainability & Integrity logo once they are bottled at destination wine, even though bulk buyers would like to have it; this is technically possible and would give South Africa a unique selling point in the bulk market where it competes with Chile, Australia, and Argentina.

Addressing such challenges would require negotiations and support from South Africa both at the level of industry and government.

At the same time, many of the current sustainability initiatives are placing additional burdens on producers' profitability, especially at the farm level. From an economic sustainability perspective, many grape growers and wine cellars are under increasing financial pressure and are selling their assets or are moving into other crops.

Profitability has been declining, particularly at the primary grape growing level. It has been below suggested economically sustainable levels since at least 2013, and the gap has been widening. This is reflective of skyrocketing operational costs and of additional vertical top-down demands on sustainability that put additional pressure on margins.

The industry's increasing financial pressures have differential impacts on smaller black and women-owned producers who generally have less resources to invest in upgrading their production processes and brand building for improved market access.

Other factors that contribute to escalating costs and problematic logistics include: the poor functioning of ports and infrastructure for logistics, expensive shipping, a domestic monopoly supplier for glass bottles, erratic supply and escalating costs of electricity (with a high carbon content), high costs of imported inputs, a lack of affordable finance, increasing excise duties and labour costs, and very limited government support for the industry in comparison to other producing countries.

Opportunities

From a sustainability perspective, and in international comparative terms, the South African wine industry has clear strengths in relation to:

- a higher proportional coverage of environmental and social certification in terms of vineyard and wine production;
- the availability of Fairtrade wine, which is reserved to wines produced in the 'Global South';
- a relatively long history and sophistication of biodiversity conservation efforts;
- a unique certification system of Heritage Vineyards that is paying important premiums at the farm and cellar levels, especially for Chenin Blanc; and
- a very strong wine tourism portfolio of offerings, which can be leveraged to multiply the channels of action and communication on wine sustainability directly to the consumer.

These strengths could be better leveraged with appropriate public sector support.

New modes of entry such as virtual wineries are arising and can provide important steppingstones for black wine entrepreneurs. Also, some supermarket chains in South Africa

have recently taken significant steps to increase their procurement from HDP wine producers. These models have the potential to be scaled up and improved although this depends on improved overall performance of the wine industry.

Other opportunities arise from growing African markets – particularly for boxed wine and other lower priced wine. Prospects for Africa are improving with the Africa Continental Free Trade Area (AfCFTA) agreement coming into effect, and with regional tourism reviving after the pandemic.

Within the domestic market, new products are being launched for young, trendy, emerging black middle-class consumers, and there are further opportunities to tap into this market.

There are exciting new and innovative directions that the South African wine industry is taking in terms of styles that are characteristic of different places, plus the emergence of a younger generation of winemakers.

Initiatives to use heritage vineyards are bringing to the fore the expression of a sense of place as well as contributing to higher quality wines and a price premium. South African wine is increasingly being recognised for its quality, with vastly improved ratings in the Platter guide and in other rankings.

The Western Cape is seen as a unique region that can produce very different styles because of a multitude of climatic conditions, and this can be more effectively capitalised. The opportunities for further growing wine tourism are substantial and could contribute to premiumisation objectives, including in new wine producing regions such as the Eastern Cape, KwaZulu Natal, Free State and Northern Cape.

Finally, South Africa, with a longer history of engagement in sustainability standards and certification in wine, and a much more diversified set of ‘sustainability stories’, can better leverage sustainability by more forcefully communicating it as a unique proposition at domestic and international trade fairs.

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Sustainability in the South African wine industry: Status, Opportunities and Challenges

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1. Introduction

Private and public governance instruments seeking to ensure sustainability in agro-food value chains have become ubiquitous in the past three decades. Virtually all major retailers, agro-food processors, and international commodity traders have developed codes of conduct and/or have been involved in one or another multistakeholder engagement (see, among others, Amengual et al. 2020; Bartley, 2018; Grabs, 2020; Grabs and Carodenuto, 2021). While sustainability governance has often led to improved processes and practices, a much more mixed picture is emerging on whether it has led to positive environmental and/or labour outcomes (Dietz et al. 2020; LeBaron and Lister, 2021; Ponte, 2019; Renckens, 2020; van der Ven, 2019).

In this context, there has been a vibrant debate on the potential and limitations of South-driven sustainability standards (Schleifer et al., 2019), which have the potential to lower entry barriers and better reflect local contexts, needs and interests than global standards (Alford et al. 2021; Higgins and Richards, 2019; MacDonald, 2020; Schouten and Bitzer, 2015; Starobin, 2021; Sun, 2022). Better sustainability governance is also said to emerge when it is embedded in a more cooperative paradigm involving local institutions and players, instead of the more traditional top-down compliance paradigm driven by lead firms, multistakeholder initiatives and/or regulation in the Global North (Lund-Thomsen and Lindgreen, 2014). Yet, Southern-driven sustainability standards and certifications systems can also be characterised by contradictions and limitations (Langford et al, 2022), even when they are built on hybrid forms of governance that feature both cooperation and compliance dynamics (Ghori et al., 2022; Macdonald, 2020). Some South-driven standards do not necessarily improve labour or environmental conditions of production (Tampe, 2018; Sippl, 2020), they may not be inclusive at the local level (Sun and van der Ven, 2020) and/or may operate in Southern markets that are not yet receptive of sustainability logos (Schleifer and Sun, 2018).

The wine industry is a perfect subject for testing some of these propositions. Although there have been a number of sustainability initiatives in various wine producing countries (Ponte, 2019), they have maintained a clear local or regional character and a concerted effort to set up a global sustainability initiative (the Sustainable Wine Roundtable) was initiated only very recently. Also, the South African wine industry has been a pioneer on sustainability in wine,

with the voluntary Integrated Production of Wine (IPW) protocol dating back to 1998 – in a global wine industry that has been a late-mover in comparison to other agro-food products.

South Africa has over the past 15 years struggled to both grow its wine export volumes and to shake off its image as a low-value, bulk wine producer. This situation persists despite substantial sustainability investments by South African grape and wine producers. Some sustainability initiatives have been stimulated through domestic standards (Hamann et al., 2017; Herman, 2018; Howson et al. 2019; Howson, 2022). Others have been driven by the general requirements of major buyers in the Global North, particularly in Europe, but also of large domestic retailers (das Nair et al., 2018; das Nair, 2018; 2019; das Nair and Shedi, 2022). Alcohol monopoly buyers, like Sweden's government-run Systembolaget, and other retailers require adherence to specific social and environmental standards, motivated in part by South Africa's troubled history around the treatment of farm and cellar workers. The continuing domination of white ownership in the industry, however, is only an issue in the domestic industry – driven as it is by government transformation initiatives under the umbrella of 'Broad-Based Black Economic Empowerment' (B-BBEE) legislation and related scorecards. Environmental sustainability is also becoming important for retailers and is translating into new requirements or information requests, such as on water and energy consumption, lighter glass bottles and more sustainable packaging materials, the promotion of soil health and using less harmful methods of pest and disease control.

The existence of these initiatives does not automatically entail that they are easing the local environmental impacts of viticulture and winemaking, or that working conditions are necessarily improving. On the former, very little is actually known. On the latter, ownership patterns and working conditions remained very problematic even after the end of apartheid (Bek et al. 2007; McEwan and Bek, 2009a, 2009b; du Toit, 2002; du Toit et al., 2008; Ewert et al. 2006; Moseley, 2008; Williams, 2005) – a situation that to some extent still persists (Alford et al. 2021; Howson, 2022; Finnwatch, 2023; Ponte, 2019). The potential for improving social and labour conditions in the industry has also been delineated (Herman, 2012; 2014; 2018). For example, transnational networks of unions in South Africa and Scandinavia have been able to campaign for change in labour processes and to push for stronger public and private regulation in monitoring working conditions Hastings (2019) – also by building on existing domestic coalitions (McEwan and Bek, 2009a) and by targeting Scandinavian alcohol monopolies, including through media exposure.[1] Yet, producers are still footing much of the bill for more onerous labour standards adherence (Hastings, 2019), a situation that puts downward pressure on pay and work conditions and can lead to increased casualization of labour – extending a well-known post-apartheid trajectory (Ewert and du Toit, 2005; du Toit et al., 2008). In other words, the bargaining power of global buyers is limiting the ability of South-driven standards to improve the social and environmental conditions of production (see also Alford et al., 2021).

In this working paper, we unpack whether, how and to what extent different demands and initiatives on sustainability are (re)shaping the functioning of the wine industry in South Africa and with what benefits for whom – in the context of other relevant factors, such as the impact of the Covid pandemic, troubles with supply chains and domestic challenges related to

[1] See in particular the documentary 'Bitter Grapes' by Tom Heinemann: http://www.bittergrapes.net

electricity supply and port operations. We do so by unpacking 'sustainability governance' in three broad forms:

1. *Horizontal* governance, which refers to local coordination mechanisms that can be driven by industry associations, civil society groups (e.g., labour unions or NGOs), and/or governmental bodies (Bair and Palpacuer, 2015; Gereffi and Lee, 2016). Case studies in developing and emerging economies (see, e.g., Lund-Thomsen and Nadvi, 2010) suggest that local collective institutions can play an important role in spurring local firms to improve labour conditions, especially in highly-visible value chains where suppliers also face important pressures from buyers.
2. *Vertical top-down* governance, which is about examining the strategies that global lead firms (often, 'global buyers') enact on their suppliers and sub-suppliers to address social and environmental challenges (Alexander, 2020, Gereffi and Lee, 2016), including the 'gatekeeping' power these lead firms exert in relation to the design and management of sustainability standards (van der Ven, 2018). In the past, these standards in the agro-food sector were often developed within the framework of multi-stakeholder initiatives, in collaboration with NGOs and industry associations (de Bakker et al., 2019; Jellema et al., 2022), but in more recent times proprietary systems run internally by global lead firms along their value chains have become more prominent (Grabs, 2020; Ponte, 2019). A strong case has also emerged for taking into consideration not only the sustainability standards and requirements these lead firms create and/or demand, but also how their everyday sourcing practices make the fulfilment of these demands possible and/or profitable (Goger, 2013; Khattak et al., 2015) and what other actors along the chain do to make this happen (Krishnan et al., 2022).
3. *Vertical bottom-up* governance, which operates through initiatives undertaken proactively by suppliers. These suppliers tend to be driven to environmental or social improvements by internal, strategic factors rather than mainly by the pressures of global buyers – as they may be seeking energy efficiency, differentiation and/or legitimation (see, e.g., De Marchi and Di Maria, 2019; Lund-Thomsen and Nadvi, 2010). In these cases, lower-tier and/or less powerful actors can act as engines of sustainability improvements, in some cases even in opposition to the requests placed by global buyers (Alford and Phillips, 2018; Selwyn, 2007).

In the rest of this paper, we draw from extensive interviews with wine industry stakeholders in South Africa to explore the drivers and impact of sustainability initiatives, as well as opportunities and challenges faced by the industry, which collectively shape its development trajectory. We carried out 84 interviews (of which 12 online) with 94 people in 76 entities in 2022. These interviews lasted normally 60 minutes, but ranged from 30 to 120 minutes. Interviewees were assured anonymity, thus primary interview material is referred to with a SAW## source code (see Appendix Table 1 for an overview of interviews). Interviewees included representatives of government, industry associations, NGOs, research institutions, media, logistics companies, and 44 direct wine value chain entities (private cellars, estates, producer wholesalers, producer cellars, wholesalers, distributors and retailers). We have not sought to interview farm labourers in our project, not because they are less important but because a large body of work has already documented some of the problematic labour conditions that persist on wine farms (Alford et al. 2021; Bek et al. 2007; du Toit, 2002; du Toit et al., 2008; Ewert and du Toit, 2005; Finnwatch, 2023). We also draw from secondary documentary and statistical evidence, and from participant observation and the attendance of

industry seminars (12 seminars and 33 presentations) at the CapeWine trade fair (Cape Town, 5-7 October 2022).[2]

This South Africa-focused material is complemented by ongoing interviews at the global level on sustainability initiatives and standards in the wine industry, and by participant observation and seminar attendance at ProWein (Dusseldorf, 19-21 March 2023), which is considered the truly global wine trade fair.[3] Finally, we will tap into research recently conducted by one of the authors on sustainability governance in the Italian wine industry, which includes primary data collected from October 2020 to March 2023 through semi-structured interviews with a total of 68 industry operators – including private, corporate and cooperative wine producers and marketers, regulatory institutions, consortia for the protection of geographic origin, sustainability certification agencies, suppliers of inputs, research institutions and labour unions. It also includes participant observation, visual inspection of exhibition stands, informal conversations and attendance of seminars at the 2022 Vinitaly, the main Italian wine fair and expo (see Appendix Table 2).

In Section 2, we provide an overview of headline trends in the South African wine industry in view of providing a general context within which we then discuss the dynamics of sustainability governance in Section 3. In Section 4, we place the South African case study in a global context, with some focus on a comparison with the Italian wine industry. In Section 5, we discuss how sustainability is communicated by the South African wine industry at industry fairs. In Section 6, we summarize the challenges and opportunities for the South African wine industry, followed by a short conclusion in Section 7.

2. The South African wine industry: General features and trends[4]

Although labelled as a 'New World' wine producer, South Africa has been producing wine in the Cape since 1659[5] and is the 8th largest wine producer globally.[6] The wine industry contributed 1.1% to the country's GDP (R55bn) in 2019 and employs 269,096 people both directly and indirectly.[7] The planted area has decreased from 101,607 ha of land under wine-grape vines in 2005 to around 90,512 ha in 2021.[8] This hectarage is cultivated by around 2613 farmers.[9] Key players in the wine industry include grape growers, wine producers (in some instances, grape and wine producers are vertically integrated), importers/agents, distributors or merchants, retailers and restaurants, as well an eco-system of players which support the industry. These players include industry associations, research and development organisations,

[2] https://www.capewine2022.com
[3] https://www.prowein.com
[4] Parts of this section draw from a working paper by das Nair and Chisoro (2023), Participation of SMEs and women-owned businesses in the South African wine value chain, undertaken for Oxfam South Africa.
[5] Source: https://www.wosa.co.za/The-Industry/History/Three-Centuries-of-Cape-Wine/
[6] Source: https://www.wosa.co.za/The-Industry/Overview/
[7] Sources: Who Owns Whom (2021). The Liquor Industry in South Africa. August 2021. Compiled by Stephen Timm (available by subscription only) and www.wosa.co.za
[8] Sources: https://www.sawis.co.za/info/download/Vineyards_2015_1.pdf and SAWIS Statistical Booklets, 2007 and 2021.
[9] Sources: www.wosa.co.za; SAWIS Statistical Booklet, 2021; SAWIS, 2022

academic institutions and standards bodies, among others. The South African wine industry structure and value chain is described in Section 2.1.[10]

Production of wine in South Africa, although growing by around 50% from 600 million litres in 2006 to 900 million litres in 2021, has stayed below the 1 billion litre mark (see Figure 3 below). The 2016 drought and the COVID-19 pandemic negatively affected wine production, with volumes starting to recover slowly in 2021. Domestic consumption of wine has historically been relatively low, with beer being the alcoholic drink of choice for majority of the population. The wine industry has further been affected by geo-political events globally, in addition to a range of national challenges, all of which have affected profitability, particularly at the upstream grape growing level. Vinpro, representing around 2,600 wine grape producers, cellars and wine-related businesses[11] highlights that 'wine grape producers' profitability has been under immense pressure over the past decade due to increasing production costs, shrinking profit margins and stagnant wine grape prices'.12 These production, consumption, profitability and domestic market trends are expanded on in Section 2.2.

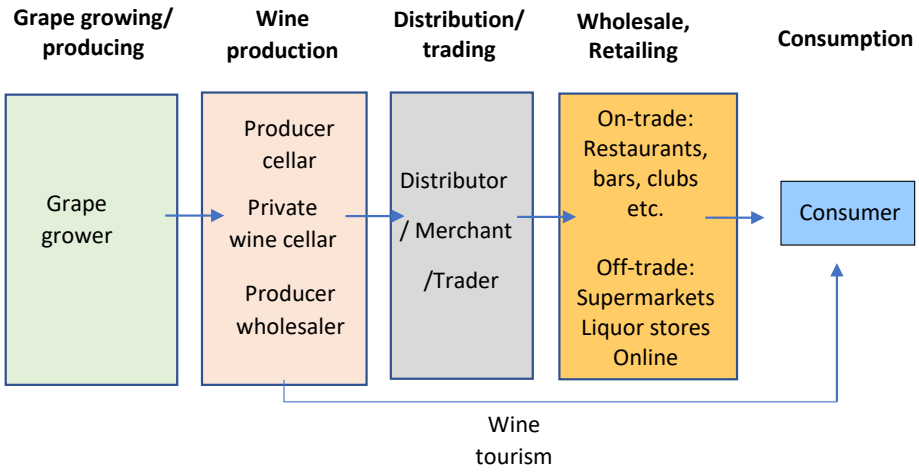
Wine tourism is another important income earner for wineries domestically. Prior to the COVID-19 pandemic, in 2019, wine tourism contributed R2.4bn to the economy and to 14.3% of wine cellar turnover on average.13 We discuss these trends further in Section 2.3. Most South African wine producers target export markets. Wine exports increased following the lifting of sanctions at the end of apartheid in 1994 but have been relatively stagnant since around 2009 within the 300-400 million litre band (except for 2013) (see Figure 7). Key export markets include the Scandinavian countries, UK, Germany, the Netherlands, France, as well as Canada and the United States. Section 2.4 expands on key export market trends.

2.1. The wine value chain and industry structure

A simplified representation of the wine value chain is provided in Figure 1 below. Grape producers at the primary level grow and sell wine grapes to wine cellars. Grape growers can also be vertically integrated through ownership into wine production as well. At this level, wine cellars produce or blend wine which they sell domestically or to international markets, through traders, importers, agents or distributors, or directly to retailers. Consumers access wine at the cellar door, or in on-trade and off-trade markets, where on-trade refers to sales for on premise consumption such as in bars, restaurants, hotels, nightclubs, and off-trade refers to sales for off premise consumption such as through supermarkets, wholesalers, retail liquor stores and online.

[10] For an overview of the South African wine industry, see also Vink (2019). For a discussion on the governance of the South African wine value chains in the mid-2000s, see Ponte and Ewert (2009).
[11] Source: https://vinpro.co.za/about-us/
[12] Source: Vinpro Cost Guide, 2021/2022: 1; available at https://portal.vinpro.co.za/wp-content/uploads/2021/04/11-Vinpro_CostGuide_2021_22.pdf
[13] Source: Who Owns Whom (2021). The Liquor Industry in South Africa. August 2021. Compiled by Stephen Timm (available by subscription only)

Figure 1: Simplified wine value chain



Source: adapted from Goncharuk, 2017

At the primary grape growing level, as of 2021 there were around 2,613 farmers producing grapes for wine in South Africa. This number has decreased substantially from 4,185 producers in 2006,[14] illustrating consolidation at the grower level of the value chain. Small farmers have either exited completely, been bought up by larger players, or started growing other crops that are more profitable.[15] 85% produce 1000 tonnes of grapes or less.[16] Only seven large grape growers produce more than 10000 tonnes (Table 1). The largest decline has been smaller producers producing under 500 tonnes of grapes, while there has been some growth in the number of larger growers (>1000 tonnes).

Grapes are then processed into wine at wine cellars through different organizational models:[17]

- A *wine producer* more generally produces wine on their premises, whether using their own grapes or bought in grapes. A wine producer can also process grapes at another wine producer's premises without needing a separate registration.
- *Producer cellars* receive grapes and process them on a communal basis on behalf of a group of grape producer members and market wine in packaged or bulk form. Also known as co-operatives (although most have shareholding arrangements), around 80% of South Africa's total wine harvest is pressed at producer cellars which have invested significantly in equipment. There are currently around 43 producer cellars in the country (Table 1).
- *Private cellars* are owned by individuals or groups who produce wine at their own cellars by using their own grapes (when vertically integrated) or by buying in grapes from other growers. The wine produced is usually under their own brand name. Some private

[14] Source: SAWIS Statistical Booklets, 2006 and 2021.
[15] Sources: Interviews SAW66, SAW75, SAW41, SAW79.
[16] Source: SAWIS Statistical Booklet, 2021.
[17] Sources for the following bullet points (unless otherwise mentioned): SAWIS Statistical Booklet, 2021 and https://www.wosa.co.za/The-Industry/Overview/.

cellars may also buy wine from other cellars for bottling or blending. There are currently 471 private cellars (Table 1).

- A *wine estate* includes a farm and cellar demarcated as an estate approved by the Wine and Spirits Board. To be labelled as 'estate' wine, the producer has to be certified as one. A dispensation in 2004 allowed for estate wine to be produced in contiguous/adjacent vineyards farmed as single units.
- There are also 22 *producing wholesalers* in the country, who act as both producers and wholesalers, and who do not necessarily need to have their own production premises. They can buy grapes for their own wine production or buy wine in bulk or packaged form from other wineries.

The number of wine producers in South Africa has also declined from 576 in 2006 to 536 in 2021, also indicating a degree of consolidation.[18] Of the 536 existing players, only seven large companies dominate exports.[19]

Next in the value chain we find wholesalers, who buy wine in bulk and resell either in bulk or in packaged form (SAWIS, 2021). There are currently around 92 wholesalers (excluding producing wholesalers) in the country. This number has increased from around 87 in 2006.[20]

Table 1: Number of players at each node of the wine value chain in South Africa

	Tons	Number
Number of primary grape producers		**2,613**
	1-100	983
	>100-500	886
	>500-1000	344
	>1000-5000	377
	>5000-10000	16
	>10000	7
Number of wine cellars		**536**
	Producer cellars	43
	Private wine cellars	471
	Producing wholesalers	22
Number of wholesalers	(including producer wholesalers)	**114**

Source: SAWIS Statistical Booklet, 2021

There are also two main, large distributors who play an important role in aggregating bottled wine and selling throughout the country and to other African countries. It is not clear if these players are also captured under wholesalers in the SAWIS data. We understand that there is also cross-ownership and vertical integration with other players in the value chain, with 51%

[18] Source: SAWIS Statistical Booklets, 2006 and 2021
[19] Source: SAW6.
[20] Source: SAWIS Statistical Booklets, 2006 and 2021.

of one of these distributors owned by a group of wine estates (SAW31). These players are an important link between wine producers and retailers and restaurants in the domestic market.

The wine industry is also supported by an ecosystem of key organisations that aim to promote research and development, market access/exports and transformation (Figure 2).

Figure 2: Key organisations in the wine industry

Source: https://www.sawis.co.za/info/download/Organogram_2021.pdf

A statutory levy is paid by wine producers, wine traders, wine spirit producers, and exporters of drinking wine.[21] Organisations whose activities are funded through the statutory levy are WoSA, Winetech and SAWIS which then all pay an estimated 20% of each business unit's funds towards the Transformation Unit (SAW1, SAW2).

- *Wines of South Africa* (WOSA) is a non-profit industry organisation with the objective of promoting and building South African brands globally.[22]
- *Winetech* is an independent non-profit corporation that undertakes R&D and technology transfer.[23]

[21] Source: https://www.gov.za/sites/default/files/gcis_document/202106/44701gen353.pdf . Industry applies for the statutory levy through the National Agricultural Marketing Council (NAMC)

[22] See also https://www.wosa.co.za/home/

[23] Winetech manages the research statutory levy to carry out research and development, knowledge transfer, innovation, and learning and development functions. Their R&D portfolio includes issues related to sustainability, climate change, water use and plant breeding. In viticulture, they are involved in pre-breeding to develop resistant varieties to fungal diseases and (to a less extent) drought. In winemaking, they are working on water reuse in the cellar and on developing energy guidelines (SAW21). One of the most important innovations they have facilitated recently is TerraClim, an integrated data resource service that provides detailed climate and terrain information to help farmers navigate increasing weather variation. See https://winetech.co.za/ and https://terraclim.co.za

- The *South African Wine Industry Information and Systems* (SAWIS) deals with the collection and dissemination of data both to the public and for its membership base.[24]
- The *South African Wine Industry Transformation Unit* (SAWITU*)* is responsible for transformation in the industry, and aims to promote black-owned, particularly women-owned, brands with respect to access to markets and through capacity building initiatives, amongst other objectives.[25] The activities of SAWITU and outcomes are an important from a sustainability perspective and are discussed further in Chapter 3.

Alongside industry research organisations, there are also government institutions such as the *Agricultural Research Council (ARC)* that conduct research and development in vines as well as technology transfer on the breeding, cultivation, protection and post-harvest technology of grape vines.[26] Other relevant wine industry organizations are:

- *Vinpro*, a non-profit corporation that represents around 2,500-2,600 wine producers, cellars and industry stakeholders. It carries out research and provides services on matters of government relations, profitability and sustainability, industry trends and technical expertise, specialised services in soil science to viticulture, agricultural economics, transformation and development.[27]
- The *South African Liquor Brand Owner's Association* (SALBA)*,* a non-profit corporation representing manufacturers and distributors in the liquor industry on issues of common interest.[28]
- The *Wine & Spirit Board*, which is appointed by the Minister of Agriculture, Land Reform and Rural Development (DALRRD) and comprises a chairperson and 12 members with expertise in the wine and liquor industries. The Board, amongst other mandates, verifies claims on wine bottle labels on origin, vintage and grape variety, and administers the Wine of Origin, Integrated Production of Wine and Estate Brandy schemes.[29]

To promote greater cohesion and for the industry body to speak in one voice to promote growth, development and innovation, the industry in January 2023 announced that a new central body was being formed – SA Wine NPC – which became operational in June 2023. The new entity aims to increase efficiency, agility, coordination, and accountability for the more optimal use of resources such as the statutory levies. From what is available in the public domain, we understand that SAWIS and WOSA will not be incorporated under the new body but will work with them through contracts.[30] Government organisations in wine tourism like the Cape Town and Western Cape Tourism Trade and Investment agency, Wesgro, which aims to position the Western Cape as a leading cultural and adventure capital in wine, will continue to support the industry.

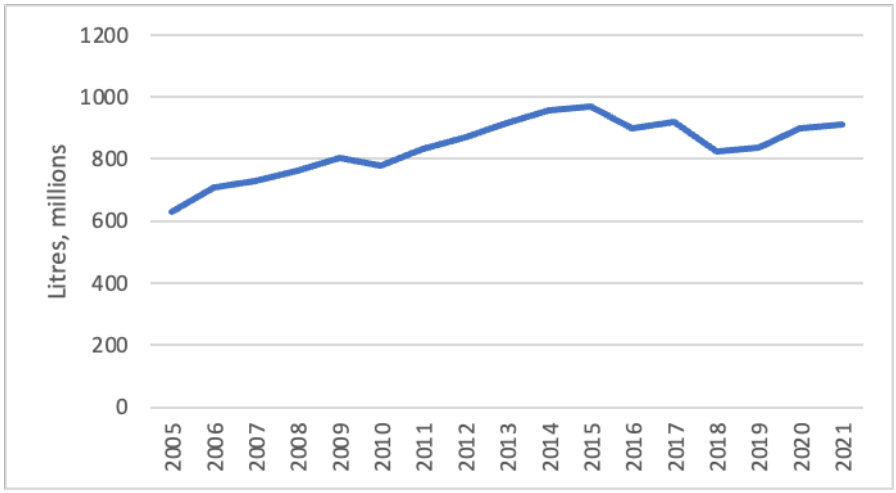
[24] See also https://www.sawis.co.za/
[25] See also https://witu.co.za/
[26] See also https://www.arc.agric.za/Pages/Home.aspx
[27] See also https://vinpro.co.za/
[28] See also https://salba.co.za /
[29] See also https://www.wosa.co.za/The-Industry/Wines-Of-Origin/Wine-and-Spirit-Board/
[30] Source: https://www.news24.com/fin24/companies/new-central-body-for-sa-wine-industry-announced-20230119

The wine industry is also supported by various educational and private organisations such as Stellenbosch University, which offers several pre- and post-graduate courses in viticulture, oenology and wine biotechnology, in addition to laboratories for testing and chemical analysis. The Cape Wine Academy also offers courses for wine professionals and enthusiasts at various levels. Programmes such as the Pinotage Youth Development Academy provide skills development opportunities and certifications for youths from historically disadvantaged backgrounds in the wine industry.[31] A range of organisations, in addition to the ones discussed above, aim to achieve greater environmental and social sustainability. Some do this through enforcing mandatory or voluntary standards (see details in Chapter 3).

2.2. Production, domestic sales and profitability

Wine production in South Africa grew by around 50% from 600 million litres in 2006 to 900 million litres in 2021 (Figure 3). The 2016 drought negatively affected wine production, and recovery of the industry was dealt a further blow with the COVID-19 pandemic. Volumes however are starting to recover slowly in 2021 (but only by a 2% increase from 2020 levels).

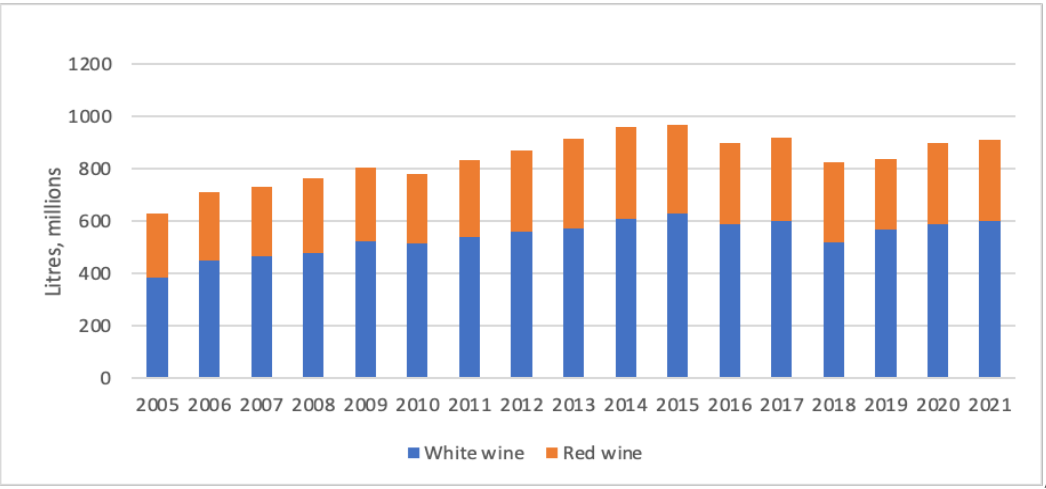
Figure 3: South African wine production (total wine products), 2005 to 2021



Source: Compiled from SAWIS Statistical Booklets, 2007 to 2021

[31] Source: https://www.pyda.co.za/know-us

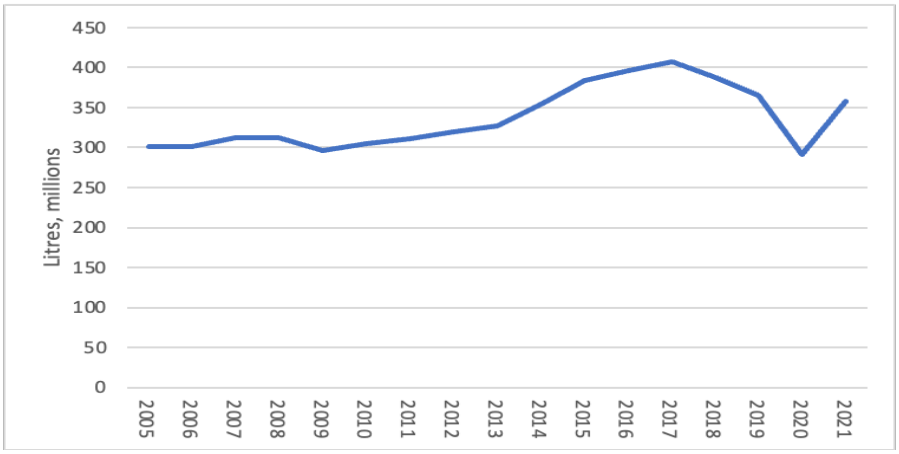
Figure 4: South African wine production of red and white wines, 2005 to 2021



Source: Compiled from SAWIS Statistical Booklets, 2007 to 2021.

South Africa produces mainly white wine, accounting for around two thirds of total production. This trend has been fairly consistent historically (with Figure 4 showing this for the 2005-2021 period). While domestic sales grew by around 100,000 litres between 2005 and 2017, 2018 started seeing a decline, accelerating sharply during COVID-19 given the alcohol ban. Domestic sales are now starting to increase from 2020 levels (Figure 5).

Figure 5: Domestic sales of still / natural wine, 2005 to 2021



Source: Compiled from SAWIS Statistical Booklets, 2007 to 2021.

The muted domestic sales growth is reflective of South Africa not being a wine drinking nation. The alcoholic beverage of choice is predominantly beer and, to a lesser extent, ready to drink (RTD) beverages. Table 2 below shows that still wine only has 9% of the share of domestic alcohol sales.

Table 2: Domestic alcohol sales

,

	2019	2020	2021	Share of total (2021)
Still wine*	364.90	291.00	358.40	9.0%
Fortified wine	31.40	16.50	23.10	0.6%
Sparkling wine	11.60	8.50	11.40	0.3%
Spirits	133.40	112.90	146.40	3.7%
RTDs	565.20	421.20	607.90	15.3%
Beer	3226.50	2416.10	2834.00	71.2%
Total	**4333.00**	**3266.20**	**3981.20**	

*Still wine excludes the grape-based liquor and alcoholic fruit beverage component
Source: SAWIS Statistical Booklet, 2021

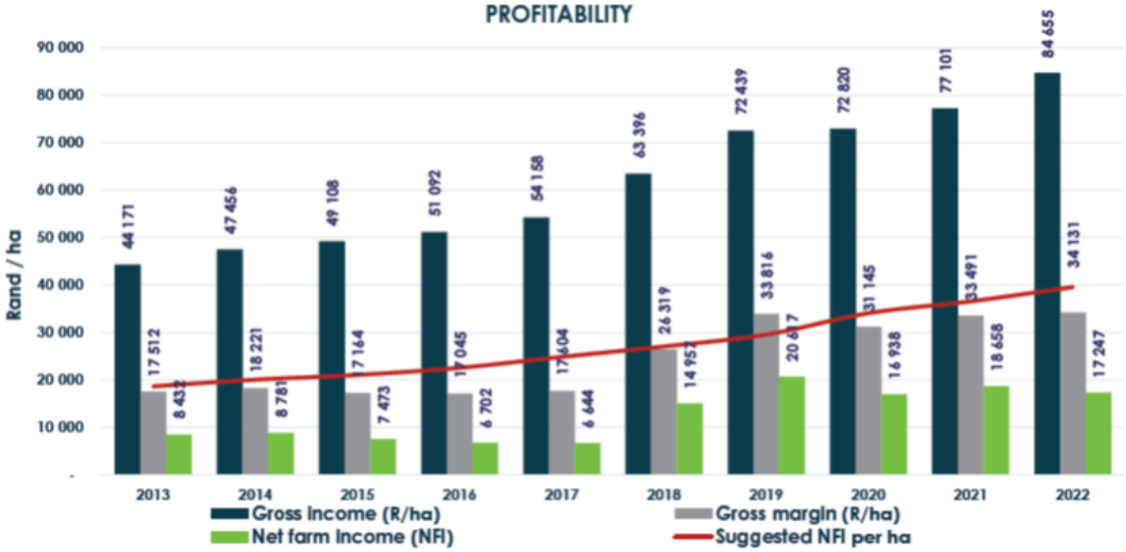
The wine industry, particularly at the grape grower level, has faced increasing pressure from rising input costs which has affected the economic sustainability of producers. The industry uses Net Farm Income (NFI) as a proxy for profitability, which is interpreted more as a measure of economic sustainability. NFI is calculated as gross income (R/tonne x tonne/ha) for a specific vintage less total production cost. Production costs are day-to-day cash expenditure as well as provisions for renewal. Production costs however exclude entrepreneurial remuneration, interest obligations and tax.[32] Cash expenditure includes direct costs, labour costs, general expenses and non-capital related expenses on mechanisation and fixed improvements. Gross income is shown in the dark grey bars in Figure 6 below. The gross margin, which is described as the cash-flow effect per hectare, i.e., gross income less production costs but before provisions are made for renewal or reinvestment, is depicted by the light grey bars in Figure 6. After provisions for renewal are accounted for, the green bars map the industry average NFI.

Of interest to the industry is the comparison between the 'suggested NFI' per ha (red line in Figure 6, values not displayed within chart, but can be read off the y axis) and the actual industry average NFI (green bars). Suggested NFI is a guideline of what is required for economically sustainable production. This is considered by Vinpro to be the minimum requirement for growers to be sustainable. Figure 6 shows that the gap between suggested NFI and actual NFI has been widening since 2013.[33] For the 2022 vintage, an actual NFI of R17,247 per hectare was realised compared to a suggested NFI of R41,425. The 2021 Vinpro survey found that 23% of growers had sustainable earnings (above the suggested NFI for 2021) and 32% were not profitable at all.[34] In 2022, a Vinpro presentation showed that only 9% of growers were sustainable (above suggested NFI), 50% made low profits (but not sufficient to

[32] Source: Vinpro Production Plan Survey (2022), obtained from Vinpro
[33] See also: Nedbank Vinpro Day presentation, slide 10, available at https://vinpro.co.za/wp-content/uploads/2023/01/2.-Nedbank-Vinpro-Info-Day-2023-Winning-in-Wine-by-Rico-Basson.pdf, accessed 27 March 2023
[34] Source: Jana Loots (2 March 2021), https://vinpro.co.za/liquor-sales-open-but-wine-industry-hit-with-other-setbacks/#:~:text=Sales%20cut%20off,20%20weeks%20since%20March%202020

effectively reinvest), 3% broke even and 38% made losses (below suggested NFI).[35] The industry's increasing financial pressures and declining profitability have serious implications for black farmers and producers with no safety net.

Figure 6: Industry average profitability, Vinpro (2022)

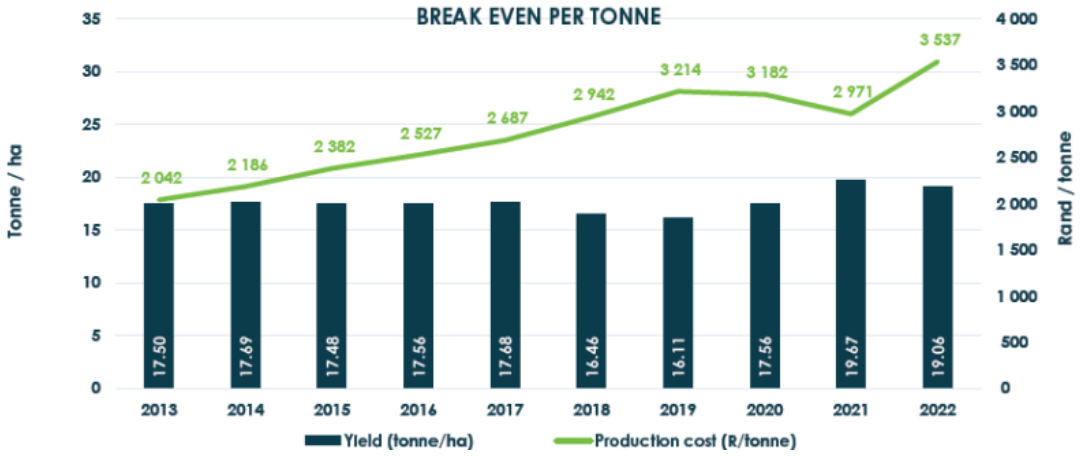


Source: Vinpro Production Plan Survey (2022)

A key reason for this declining profitability is the rising costs of production for grape growers. Another metric calculated by Vinpro to show this impact of rising costs faced by growers is the break-even price. The break-even price is calculated by dividing total production costs by the average yield per hectare of wine grape producers surveyed across nine wine regions. Industry average figures are calculated using weighted averages of participants surveyed and applying a region-specific weight (based on SAWIS data on hectarage). For 2022, 282 production units participated in the survey. These covered 29% of the total South African surface planted to wine grapes in 2021 and produced 34% of the total South African crop in 2022 (of which 68% were white and 32% red wine grapes). The survey covers overall grapevine cultivation (bearing, as well as non-bearing hectares). The 'break-even price' calculated in this way is highly influenced by the yield. Yield increases lead to decreases in break-even price and can balance or more than offset increases in total production cost. This calculation of break-even price does not take into account entrepreneurial remuneration, interest or tax. The 2022 break-even price calculated in this way is therefore interpreted as follows in Figure 7: the first ZAR 3,537 received by the producer for a tonne of grapes should be allocated towards total production costs without entrepreneurial remuneration, interest or tax being considered.

[35] Source: Nedbank Vinpro Day presentation, slide 10

Figure 7: Break-even price per tonne as calculated by Vinpro



Source: Vinpro Production Plan Survey (2022)

The steadily rising break-even price therefore signifies escalating production costs for which increases in yields are not compensating (including due to what is reported as ageing vineyards and accompanied diminishing productivity). The implication is that higher selling prices are needed for the production unit to earn positive margins. We understand that growing production costs are as a result of several factors, including rising electricity, fertiliser and labour costs, as well as increasing excise duties.[36] Geopolitical uncertainty and environmental factors, such as periods of drought, further raise production costs for growers.[37] While similar data on profitability at the winemaking level or for integrated grape growing and wine making operations are not publicly available, these rising production costs also directly affect this level of the value chain (see also Section 6.2.6).

2.3 Wine tourism

Wineries earn revenue from wine tourism through international and local visitors. In 2019, wine tourism contributed ZAR 2.4 billion to the economy and 14.3% of wine cellar turnover on average.[38] Wine tourism brings in revenue through wine tastings and sales, accommodation and restaurants. For some wineries, wine tourism accounts for a significant proportion of sales. Two of our interviewees highlighted that it accounted for 30% of their sales, with one noting it had a substantial impact on international sales (SAW84; SAW4). Others noted that it counted for between 10% and 25% of their sales (SAW80; SAW28), with margins on cellar door sales being higher than sales through other routes (SAW28, SAW26; SAW31). Several highlighted

[36] Source: Jana Loots (2 March 2021), https://vinpro.co.za/liquor-sales-open-but-wine-industry-hit-with-other-setbacks/#:~:text=Sales%20cut%20off,20%20weeks%20since%20March%202020

[37] Source: Nedbank Vinpro Day presentation, slide 10, available at https://vinpro.co.za/wp-content/uploads/2023/01/2.-Nedbank-Vinpro-Info-Day-2023-Winning-in-Wine-by-Rico-Basson.pdf

[38] Source: Who Owns Whom (2021). The Liquor Industry in South Africa. August 2021. Compiled by Stephen Timm. (available by subscription only).

the importance of wine tourism for their businesses, and the value of diversifying into wine tourism to not solely be reliant on wine production (SAW61, SAW64, SAW65). For the international market, wine tourism offers an opportunity to promote South Africa as a destination of choice which could then translate into wine sales (SAW66). Conservation initiatives also spill over into tourism opportunities, for example, in terms of offering spaces for walking, mountain biking and hiking trails on wine farms (SAW52, SAW61, SAW75, SAW76, SAW84), as well as wildlife experiences (SAW9 and 51). There is recognition however that there is greater scope to create stronger links between conservation and tourism (SAW7).

Table 3: Proportion of revenue from wine tourism (2019)

Revenue range	Proportion attributed to wine tourism
</= ZAR 10m annual revenue	41%
Between ZAR 10m and 50m	26.9%
Average of for all wine farms	14.7%

Source: Who Own Whom (2021)

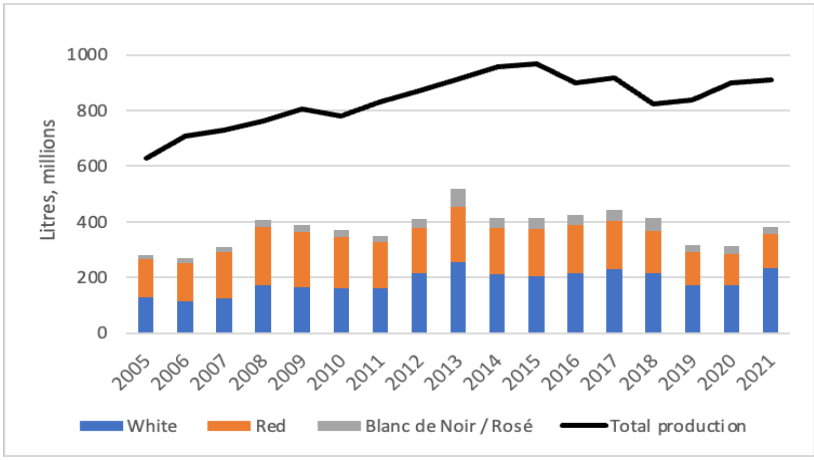
Table 3 highlights the proportion of revenue derived from wine tourism for different sized producers. For smaller wineries (less than ZAR 10 million in annual revenue), wine tourism accounts for almost half of their revenue. Wine tourism is therefore an important revenue earner for smaller wineries, and for emerging black wine entrepreneurs to market and grow their brands (SAW18) and also as a way of diversifying revenue sources to support sustainability. Government organisations like the Western Cape Tourism Trade and Investment (Wesgro) aim to position the Western Cape as a leading wine tourism destination. There is also growing interest in sustainability in tourism (SAW32). We return to the importance of growing wine tourism, including as potentially part of a premiumisation strategy, in Section 6.3.5.

2.4 Export trends

The South African wine industry is export oriented, with just under half of what is produced in volume terms is exported (Figure 8). Total still wine export volumes have hovered around the 400 million litre mark since 2008. Still wine exports exclude fortified, sparkling and Cap Classique. In terms of the value of exports of wine, data from the South African Revenue Services (SARS) show that export values increased steadily between 1994 and 2013, after which values have been generally declining (Figure 9). The UK, Germany, the United States, Canada and the Netherlands are the largest five export destinations for South African wine (Figure 10). Figure 11 shows a general decline in exports to Europe in terms of export values. Sales to Asia grew from around 2000, but a decline is seen from 2018 onwards. Sales to US markets have been fairly steady since the early 2000s. Notably, sales to SADC countries have seen an increase since 2009. We note however that this may be due to a change in how SARS data has been reported.

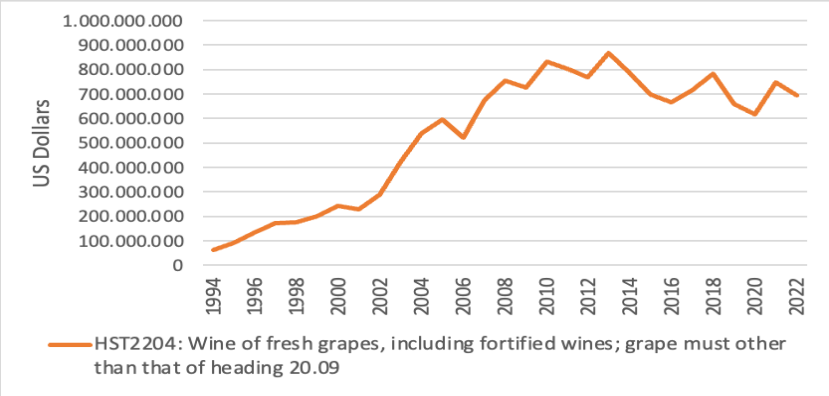
The profile of exports has changed dramatically between 2005 and 2o21 as Table 4 shows. In 2005, 68% of exports were packaged, while the remaining 32% were in bulk form. In 2021, 62% of exports were bulk, and 38% packaged. This has implications for the prices obtainable for exported wine and South Africa's premiumisation objectives (see discussion below).

Figure 8: Still wine export and total production volumes, 2006 to 2021



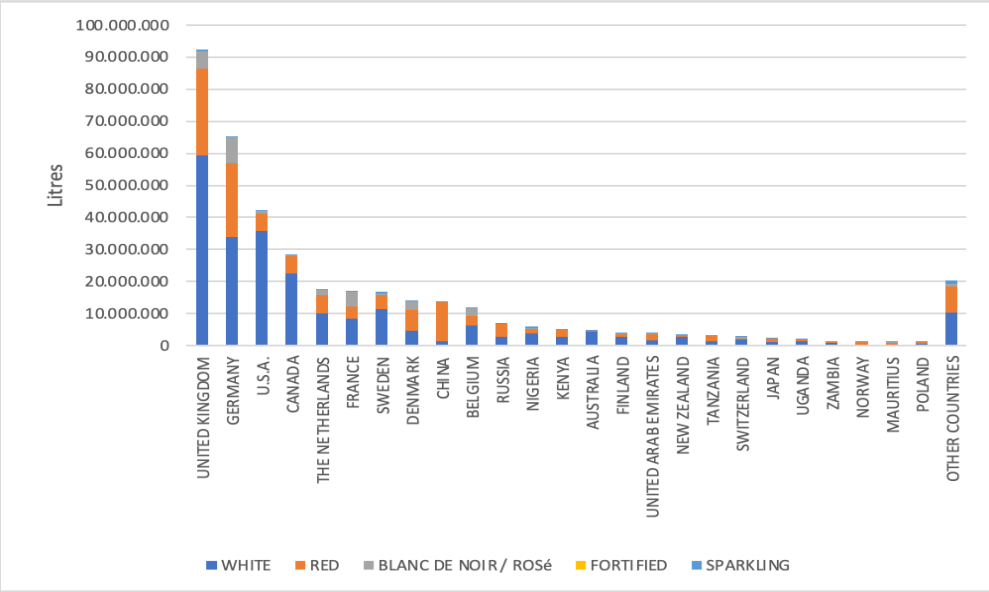
Source: Compiled from SAWIS Statistical Booklets, 2007 to 2021.

Figure 9: Still wine export values, 2006 to 2022



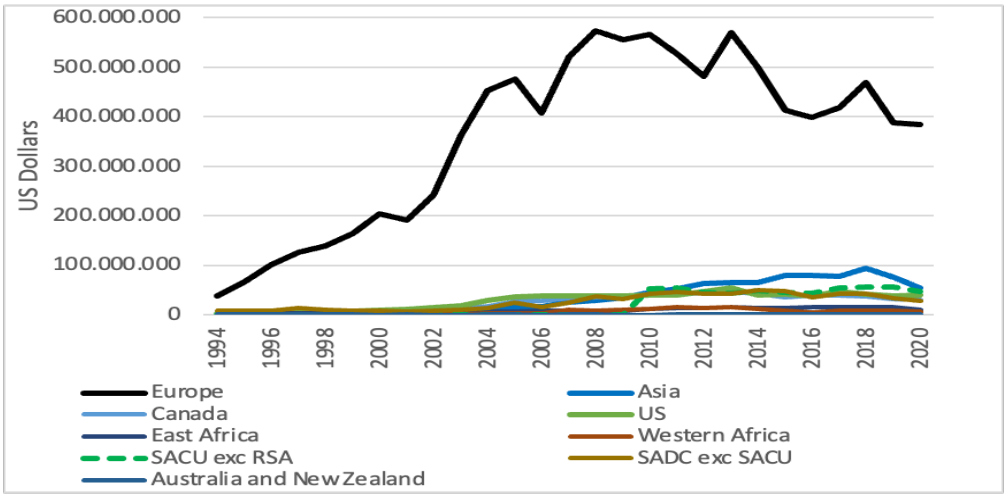
Source: SARS data obtained from Quantec. HST2204: Wine of fresh grapes, including fortified wines

Figure 10: Top 25 export countries by packaged and bulk exports combined (by volume), excluding industrial wine, 2021



Source: SAWIS Statistical Booklets

Figure 11: Wine exports trends by destination (by value), 1994 to 2021



Source: SARS data obtained from Quantec. HST2204: Wine of fresh grapes, including fortified wines; grape must other than that of heading 20.09.

Table 4: Proportion of packaged vs bulk export sales in litres, 2005 and 2021

	2005	2005 (%)	2021	2021 (%)
Packaged	189,350,030	68%	145,567,547	38%
Bulk	89,767,167	32%	242,565,602	62%
TOTAL EXPORTS	**279,117,197**		**388,133,149**	

Source: SAWIS Statistical Booklet, 2021

3. Sustainability initiatives in the South African wine industry

Sustainability is one of the industry's biggest challenges and it has become increasingly important, especially in the past 10 years (SAW2). Sustainability has become a minimum requirement from domestic and international buyers, but South Africa has also used it as a marketing strategy (SAW6, SAW19). In the global context, South Africa is considered to be at the forefront of sustainability (SAW37) as it has been a pioneer in developing internationally recognized standards.

Our discussion frames sustainability initiatives in broad terms, covering environmental issues, climate change and carbon footprint, but also social sustainability, transformation and inclusion/participation of historically disadvantaged persons (HDPs). Economic sustainability is equally relevant as it both affects, and is affected by, environmental and social sustainability initiatives. In the following discussion we proceed to map the various sustainability initiatives that together constitute sustainability governance in the South African wine value chain. We make distinctions between three kinds of sustainability governance: horizontal, vertical top-down and vertical bottom-up. Horizontal sustainability governance refers to initiatives driven by industry associations, civil society groups and/or government at the local, regional and national levels. Vertical top-down governance relates to the sustainability demands that are placed by global buyers and retailers (both in the North and domestically) on their suppliers and sub-suppliers to address social and environmental challenges. Vertical bottom-up governance operates through individual sustainability initiatives undertaken proactively by suppliers.

3.1 Horizontal initiatives

The South African wine industry has responded to growing demands for sustainability by creating a variety of sustainability programmes and initiatives from farm to bottle (SAW13, SAW50). In the following discussion, we examine each of them in some level of detail (see list in Table 5).

Table 5: Horizontal sustainability governance initiatives

Initiative	Focus
Integrated Production of Wine (IPW)	Plant protection and food safety; climate change issues starting to be included
WWF Conservation Champions	Water, energy, nature conservation
Carbon Heroes	Carbon footprint
Old Vines Project	Preserving old vineyards and 'planting to grow old'
Wine and Agricultural Ethical Trading Association (WIETA)	Labour conditions, occupational health, safety, worker housing
Transformation/BEE initiatives	Improving HDP ownership, market access and entrepreneurship

Source: elaboration by the authors

3.1.1 Integrated Production of Wine (IPW)

IPW is a voluntary sustainability scheme managed by the public sector and applies to farms and cellars (SAW 1, SAW31). Currently, 95% of all vineyards and 94% of wineries (95% of wine sold) are certified with this standard (SAW1, SAW2, SAW25). South Africa was the first country in the world to develop a sustainability certification system for wine: the scheme was started in 1998, the first harvest was certified in 2000, and the seal was first affixed to wine bottles in 2010 (SAW25, SAW1).

IPW includes environmental sustainability criteria for viti-viniculture – covering production, processing and packaging. The sustainability seal is affixed together with the Wine of Origin seal that covers traceability and integrity issues. Producers that do not obtain or use the IPW seal can still have their wine certified under the wine of origin system (SAW25).[39] Cellars, farms and bottling companies carry out annual self-assessments, while external audits take place every three years (for cooperatives, only a random selection of farmers are audited) (SAW2). Farms and wineries need a 63-65% or above score to pass. IPW certification is particularly important for qualifying for some of the tenders by monopoly buyers in Scandinavia (SAW26).

While in the early years focus was placed mostly on plant protection and food safety, environmental sustainability and climate change issues are now being gradually embedded in the IPW standard. Although it does not yet incorporate specific goals for reducing carbon footprints, the IPW protocol allows extra points to be scored for using a specific carbon calculator (see below). 'Demand for carbon footprint information is growing, so we need to step up or we will be left behind. We are getting more and more inquiries from our members on carbon and water neutrality' (SAW25).

[39] See also https://www.ipw.co.za

IPW has also started bringing in elements of conservation (influenced by the WWF Conservation Champion programme, see below) and includes water conservation issues both at the farm and cellar levels (SAW25). Auditors are allowed to provide recommendations on how to improve the situation at the farm and winery levels and these notes are included in the auditing reports. However, IPW does not have resources to hire consultants to help farms and wineries to improve. This gap in funding points to missed opportunities for setting up an expert group to provide advice to farms and wineries on how to improve their compliance with IPW.

One of the outstanding critical issues with IPW is that it allows the use of glyphosate for weed control. This herbicide is still legally registered in South Africa, but there is a sense that its days are numbered. The EU has recently banned two fungicides commonly used in viticulture and is considering whether to ban glyphosate as well. 'Farmers are using glyphosate because it is a cost effective way of managing weeds in the vineyards, when used according to guidelines and in a safe way … but this is a risky approach as you are limiting your market possibilities' (SAW25). Given the implications for market access in the near future, these are issues that require research and development to prevent loss of markets or exports from being blocked.

3.1.2 The WWF Conservation Champions Programme

The WWF Conservation Champions programme started in 2015/16 on the foundation of a previous WWF programme, called the Biodiversity and Wine Initiative (BWI) (SAW1, SAW7). Its basic principle is to recognize the best performers in the field of conservation. The old BWI programme was focused only on nature conservation, and champions had to set aside 10% of their land for that purpose. However, WWF realized that not all farms could achieve that goal, so they expanded their coverage to three conservation criteria: energy, water and nature (SAW7). One can qualify by meeting only one of these criteria, but the majority of producers comply with two or three – all seem to be complying with the water criteria. The programme is also considering extending its coverage to carbon footprint (SAW33). A total of 55 farms covering 25,000 ha are currently 'Conservation Champions' (SAW1, SAW2, SAW7): '50% are family owned by generations and have made sustainability their philosophy; 25% are big brands, and their main interest is marketing – it is not a certification as yet but they want to be able to use the attractive stickers featuring a protea and a sugarbird on the wine bottle; the last 25% are companies that do not need it but still value the initiative and the advice they get from it' (SAW2). This system has most meaning in the domestic market (SAW2, SAW7).

WWF personnel carry out annual assessments in all farms and check changes in their environmental plans, consult the IPW audit report and advise them on possible ameliorations. They also provide technical advice to champions. The main funder of this initiative is an individual philanthropist, who has indicated that the programme will soon need to be completely self-funded. No membership fee is being charged for the time being, but this may change in view of reaching financial self-sufficiency (SAW7).[40] In terms of markets, WWF is

[40] See also https://www.wwf.org.za

trying to get more shelf space with retailers, but it is difficult, and they have not succeeded yet. In some export markets, some retailers are interested in it, as they want to see the certificates and labels, hence there is some traction (SAW7). Given the similarities in issues addressed by sustainability initiatives such as IPW and WWF, there are opportunities for combining efforts which can lower the overall cost of providing such services and compliance by producers.

3.1.3 The Confronting Climate Change (CCC) Programme and Carbon Heroes

Carbon footprint will be a major issue in the near future (SAW17). The EU will soon place carbon emission requirements, which entails decreasing the use of fertilizer, electricity, fuel, and agro-chemicals. The EU is considering applying a border carbon tax and it is pushing on environmental labelling. Adoption of carbon calculators in wine is partly driven by retailers, but partly also by some larger wineries and wholesalers who are moving pro-actively in this field. Systembolaget, for example, is developing a special tender for carbon-neutral wine. While South Africa's wine industry is trying to respond to these changes, producers still have a limited understanding of the importance of carbon footprint. Also, there has been no domestic regulatory push to date (SAW12).

Drastic changes in weather also affect grape farming, hence farmers need to adapt (Vink et al. 2012). Large farmers are starting to incorporate these changes, including solar panel and battery storage installations, water recycling, excess drainage and underground drainage water systems which go into dams, and soil carbon analysis to improve soil health (SAW4, SAW9, SAW17, SAW22). The world is also moving towards green technology, raising the need for further investment in infrastructure in order to access key export markets in Europe (SAW4, SAW5).

The CCC programme is run by a consulting outfit called Blue North Sustainability and helps value chain actors to carry out carbon footprint calculations. Originally funded by the UK bilateral aid agency (DfID at that time), it was later taken over by the Department of Agriculture and eventually by the fruit and wine industry bodies – which now own the actual tool. In 2019, it was commercialized and is now run on the basis of a 'user pays' model. The tool is used to generate calculations of carbon emissions along the chain, to then compare with benchmarks by region and commodity. It is accompanied by online training tools and local support (SAW12).[41]

This tool is used to help value chain actors to carry out carbon footprint all the way to the harbour overseas. Farmers can input data and generate calculations of carbon emissions along the chain, then compare them with benchmarks by region and commodity. At the farm level, carbon calculation is not too complex. Farmers have data on the main headlines, that is fertilizer, electricity, fuel, and agro-chemicals. CCC is also pushing farmers to break down the

[41] See also https://www.climatefruitandwine.co.za

different uses of fuel so they can better minimize its use. This is to identify hotspots and find solutions. At the cellar level, there are different business models and so it is more complex to calculate carbon emissions. A cellar needs to follow the international protocol PASS250 for products, which requires training of personnel. The idea behind CCC is that the whole industry should conduct these calculations. Although the data generated per se are considered good, alone they do not mean anything unless companies adopt a strategy of how to reduce carbon emissions. Such a strategy requires 3-4 years of data on average to be able to get a proper assessment, because carbon emissions are also related to varying weather conditions (SAW12).

The Carbon Heroes feature in the CCC programme is used to recognize the journey that the more advanced firms have made in this field – and allocates a label for a period of one or three years depending on the score.[42] The Carbon Heroes label can be used on websites and for marketing and communication purposes, but not on the bottle yet. As of 2022, 39 of 536 cellars had completed the carbon footprint exercise, while only 17 farms out of 2,613 producers had done so. They get one bonus point on the IPW score. 'Other industries are far ahead on this road. The wine sector is difficult as many farms are small and have no administrative personnel to take care of these things' (SAW12). The administratively intensive and costly nature of compliance points to the need for support especially for smaller farmers and producers to improve industry compliance.

3.1.4 The Old Vines Project

South Africa's Old Vine Project started operating in 2016 and certifies old vine vineyards that are 35 years of age and above (SAW23, Mafata et al., 2020). From 2019 onwards, producers have been able to obtain a 'Certified Heritage Vineyard' seal that can be placed on the bottles of wine produced from these vineyards (SAW35). The seal identifies the planting date of the vineyard, which is verified by SAWIS through a database tracing all plantings from 1900 onwards. According to the project personnel, South Africa is the only wine producing country with an organized old vine initiative that can verify these claims this far back (Chile can only go as far back as 1986) (SAW23, SAW29, SAW35).[43]

South Africa has 4,000 ha of vineyards that are 35 years or older out of around 90,000 ha. Most are white varieties, with Chenin Blanc accounting for about 50% of the total. Bush vines are about 46% of total, the rest are trellised. Irrigated vineyards account for 65% of the total, the rest are grown on drylands. The majority are available in Stellenbosch, Swartland, Paarl and Wellington – that is, in warmer climates as old vines do not like cold winters (SAW29, SAW38).

The basic observation upon which this initiative is based is that after 30 years, the vine stabilizes and 'sends juice to the cellar that is almost perfect … Vines "read" the vintage and

[42] See also https://carbonheroes.co.za
[43] See also https://oldvineproject.co.za

adapt. Young vines live like there is no tomorrow. Old vines are more thoughtful, so to speak, they invest more in their root system, they are looking for survival … Old vines make themselves as attractive as possible to spread their seeds around – they know they are about to die. They have a more concentrated production … and thus quality is higher' (SAW29).

> 'Old vines are definitely an advantage to our industry … The quality of grapes is good as the root system is quite deep in the soil and gives nutrients that have not been washed out in the top half meter over thousands of years. You really get into a different cell structure and different nutrient levels in the lower soils and that's what old vines can do, they can go into the deepest soil because of the age. They also have thicker skins are more heat tolerant, so there are a lot of advantages' (SAW20).

However, as vineyards get older, yields decline (SAW9) and in normal market conditions they become uneconomical for the grower. 'When you go under five tons per hectare it does not pay to continue tending the vine, unless you get a premium for the grapes you harvest' (SAW29). The Old Vine Project has developed a business model where brand owners are willing to pay a premium for these grapes (SAW35). Its main challenge has been to convince farmers that are members of cooperatives (85% of old vines in South Africa are planted in the cooperative system) to save these old vines, and to convince the cooperatives to keep these grapes separate from the rest of the harvest.

Research has shown that consumers are willing to pay a premium for these wines (Priilaid and Stein, 2018) and farmers are actually receiving a high premium for old vine grapes currently (from 200% up to 400% of the price for the same grapes obtained in the regular market). Wine made from old vines is therefore a premium category (SAW35). This is particularly encouraging in an environment where many farmers are closing down shop due to high costs and low grape prices (SAW38, SAW83). For example, one of the cooperatives involved in this effort is now selling an old vine Chenin Blanc under its brand at ZAR 200 (USD 11) a bottle at their cellar, instead of the usual ZAR 70 (USD 3.8) (SAW65). The cooperative manager told us that 'with old vines, you buy legacy … we are now making the best Chenin in the country, and this brings status to the winemaker; farmers are now proud, they make more of an effort' (SAW65). Also, because of the old vine project and sales, they were able to expand the tasting area: 'we are full every weekend and old vine is also opening markets for our non-old vine premium wines' (SAW65).

However, not all old vines make good wine. 'Some are good vines that have been looked after, others can be restored for good production, but the unhealthy ones should be let go' (SAW29). The total area of old vines in South Africa is large enough to provide volume and visibility, but small enough as a proportion of the total that it can sustain a premium and provide a unique selling point. These wines are perceived to be of higher quality and have built a good image not only in South Africa but also internationally (SAW23, SAW38, Crous, 2016).

The project personnel argues that there are clear economic, social and environmental sustainability elements in saving old vines, and in tending existing vines to 'grow old' (adopting practices that can lengthen the lifespan of the vine). There is a social element too (keeping people in business, thus saving jobs). Research on old vines can be helpful to understand how they survive and thus is important in relation to adaptation to climate change (SAW35). They consume less water and show more resistance to high temperatures (SAW38). If one selects the correct site, stock and clone combination, then vines can actually live for over 80 years (SAW29). Since it is very expensive to replant a vineyard, farmers can save quite a lot of money by replanting less (SAW29, SAW35). Also, South African Chenin Blanc has been building an international reputation for high quality and uniqueness in style, which can be combined with old vine certification to offer a unique proposition. However, there is a massive economy invested in vine replanting, so part of the industry is not happy with this idea (SAW35). All in all, this is one of the rare sustainability-related initiatives for which grape producers have been drawing clear financial benefits, at least so far.

3.1.5 Wine and Agricultural Ethical Trading Association (WIETA)

A global push is taking place in view of improving human rights conditions on farms and a growing understanding of social sustainability in the wine industry (SAW39). WIETA is a multi-stakeholder initiative that has been active in South Africa since the early 2000s (on its early history and development, see du Toit, 2002; Herman, 2017; McEwan and Bek, 2009a). According to its website, it represents 'the interests of trade unions, civil society groupings, wine brands and their producers … [It promotes] fair working conditions within the wine industry and [provides] a platform for dialogue around ethical trade'.[44] WIETA has developed and manages an ethical code of conduct and carries social audits to ascertain legal compliance with South Africa's labour and occupational health and safety legislation. It also requires 'beyond compliance' demands to make sure that 'management systems reflect sustainable ethical principles, policies and practices … [and] that farm worker housing not only meets prescribed safety, health and sanitation standards but also promotes the right to dignity, family life and broader community development'.[45] The WIETA protocol also demands that employment contracts are properly explained to farm workers, as many of them cannot read.

Despite these efforts, there are still outstanding challenges related to poor working conditions on farms and cellars, deteriorating wage conditions and farm worker evictions, especially for women (SAW2, SAW44). Farm worker communities often lack access to programs and services such as public transport, health services, and education especially in remote farms. This has led to development of community projects such as the Pebbles project, Stronger Together SA, and the Anna Foundation to try and address these issues (SAW15). These problems are compounded by government's poor law enforcement in the industry coupled with workers not knowing their rights (SAW11, SAW44),

These challenges have informed the accreditations for ethical standards (such as WIETA and Fair Trade, see below) and the requirements from importing countries (especially from

[44] https://wieta.org.za/who-are-we/
[45] https://wieta.org.za/who-are-we/

Scandinavian and Canadian monopolies and some retailers in the UK and the Netherlands). Although adherence to the WIETA code is voluntary, 77% of total vineyard area meets the standard and is certified (SAW1, SAW2). 'In the past, it was not recognized by buyers and especially retailers, but now in the UK and elsewhere in Europe it is accepted' (SAW10). In Sweden, Systembolaget has special tenders for WIETA wines from South Africa' (SAW2).

Currently, 1,400 growers are either certified or are carrying ongoing certification efforts (SAW10). Depending on the risk matrix, they can get different grades from A to D: an A grade allows them to maintain certification for three years until the next audit; a B grade ensures certification for two years; a C grade only for one year; and D grade indicates that they did not pass and need to address specific outstanding issues before reauditing (SAW2). Producers have one year to address corrective actions and WIETA helps them with training and capacity building, or by advising them on how to get funding for such purposes. WIETA does not help operators with the actual implementation of corrective actions as it would constitute a conflict of interest (SAW2, SAW10). Since 2019, accredited third party auditors have been used for certification.

While WIETA is helping producers to be able to sell South African wine in export markets, uneasiness about the requirements demanded by retailers is pervasive in South Africa: 'the Nordic monopolies always want more sustainability, but they are unwilling to pay for it … The squeezed margins go down to the grape growers. At our cooperative, we have gone down from 37 to 23 producers as margins are very low – the tip paid at the restaurant for the wine is higher than the margin for the grape grower!' (SAW79). Several of our interviewees stated that social issues are difficult to sort out, and that they cost more to the producers who also do not have resources (SAW19, SAW41, SAW49), which puts increased pressure on the business. Sustainability certifications have become a necessity for market access but do not give a producer competitive advantage (SAW19).

3.1.6 Black Economic Empowerment (BEE)/transformation initiatives

General challenges

Transformation is a key government agenda and an imperative for the wine industry (SAW3), and inclusion of black SMEs has been a special focus in the industry. Ownership of wine farms and production of wine has historically been dominated by white-owned and managed businesses, and entry and expansion of black SMEs has been limited (SAW3). Eighty per cent of wine farms are still in the hands of white men (SAW44, SAW47). Less than 3% of total industry sales are accounted for by black-owned brands (other estimates indicate this figure as being less than 1.5% of sales), while only 2.5 – 2.7% of the total area planted with wine grapes is owned by historically disadvantaged persons (HDPs) (SAW18, SAW3). Of this, the proportion of women who own land is likely to be even lower (SAW18, SAW3). These dynamics make it difficult for women to break into the industry (SAW47).

There is a general understanding in the industry that 'transformation has a long way to go. The industry wants to double the land owned by previously disadvantaged people from 2.5% of the vineyards to 5% by 2025' (SAW1). This is still far from the government's transformation targets of transferring 20% of land and water rights into the hands of HDPs by 2025 (SAW3, SAW18). The main challenges in moving this agenda forward are that 'wine land is expensive, and

returns are low. There is little general interest by HDPs in grape farming. Farming is not seen as an attractive trajectory – it is better to become a lawyer, doctor or engineer' (SAW1, SAW2). Furthermore, most black brands that are involved in farming do not have funds to set up infrastructure in cellars and other facilities (SAW4). An estimated ZAR 500,000 per year is required to operate a successful farm (SAW18). At the marketing level, to build a successful brand in supermarket chains requires an estimated ZAR 2 million for brand activation (SAW18). Entrants also need mentorship, coaching, enterprise supplier development and access to markets (SAW18). There is a large gap in funding to make the necessary investments to support the aggressive entry and ownership by black entrepreneurs.

In pursuit of transformation objectives, the wine industry has put in place initiatives and structures to support entry and participation of HDPs. A key institution is the South Africa Wine Transformation Unit (SAWITU).[46] As highlighted in Section 2, SAWITU is a non-profit company providing support in various aspects of black entrepreneurs' businesses, such as legal, regulatory, operational and market access. SAWITU also provides enterprise development programmes to assist entrepreneurs scale their businesses through accessing funding and infrastructure, as well as capacity building, coaching and mentorship.[47] The industry's transformation activities have been funded by a statutory levy set at 20% of the industry's total levy income since 2015 (approximately ZAR 20 million per year) (SAW2, SAW3, SAW18).

Notwithstanding the slow pace of transformation generally, and the limited financial resources available for transformation objectives, SAWITU currently supports 67 members – ranging from HDPs owning land, farming grapes, producing and bottling wine, to HDPs ordering a particular style of wine from a wine cellar and then bottling with their own brand (SAW1). Central to SAWITU's transformation objectives is its specific focus to increase representation of black women-owned wine businesses. Of the 67 black-owned wine brands supported by SAWITU, 75% are women-owned (SAW18) Furthermore, of the twenty or so black brands supported by SAWITU under the Wine Arc facilities, the majority of these businesses are women-led or women-owned. The entry and participation of black women-owned businesses in the broader wine industry is particularly important given the stark gender disparities in participation (SAW44, SAW47). Women-owned businesses comprise some of the black entrepreneurs that have achieved relative success through producing high-quality wines with strong brands in both domestic and export markets (some of which are award-winning). Leveraging several years of experience in winemaking, these black women entrepreneurs are directly involved in production of their own wines through virtual wineries, in rented cellar facilities or privately-owned cellar facilities.

However, the entry experiences of HDPs has been challenging given that many do not come from a background or long family history of wine production. The significance of generational knowledge in the wine business is particularly striking. This goes together with networks and brands built over long periods of time, and close collaboration with suppliers and end markets. In the more 'traditional' wine market, new entrants and young wineries generally struggle to build their brands and grow their footprint, with the loyal existing customer bases preferring established brands (Mabaya et al., 2014).

[46] https://witu.co.za
[47] https://witu.co.za/support-programmes/

Without this history, and often coming into the wine industry 'cold', black-owned brands typically enter through pursuing a passion they develop for wine making after exposure to the industry in some form. In some cases, this exposure has been through working in wineries or vineyards, in retail sales of wines (for instance, in restaurants), or in wine tourism. In other cases, this has been through opportunities in wine education (for instance, through courses, short learning programmes and university degrees at the University of Stellenbosch and the Elsenburg Agricultural Training Institute in the Western Cape) (SAW3). The knowledge built through wine education covers aspects on land, vineyards, production, selling, distribution, logistics and retail.

Land-based models

Despite the hurdles we highlighted so far, a few black entrepreneurs have managed to enter the wine industry through a 'land-based based model' (SAW17; SAW19; SAW22). This model requires substantial capital investment in land, infrastructure and facilities. Land was particularly cited to be expensive especially in areas such as Franschhoek (SAW3). Land-based entry also requires expertise at multiple levels of the value chain, especially in the grape growing level. As such, there have been very few examples of successful entry through this model. Land-based entry is further challenging given the lead times to get products to market. For example, one needs to plant a vineyard for three years, and then it takes approximately another two to three years to produce a product like sparkling wine with the Methode Cap Classique (MCC) (SAW3). It is only after this, and assuming the product sells well, that any return on investment is realised. This long lead time has severe implications for cash flow, as running costs (salaries, electricity etc.) continue to accumulate before sales are made.

The few black entrepreneurs that have entered through the land based model have purchased existing vineyards and wineries, which they had to turnaround with significant investments in farm infrastructure and production facilities. They are involved at all levels of the supply chain from growing grapes to producing and bottling wine. This enables them to make decisions at different levels of their supply chains – including responding to market changes and opportunities in a timely manner (SAW3).

Other land-based entry models take the form of farm worker ownership schemes, where vineyard owners transfer part of their farmland to workers as part of BEE transformation projects. Farm workers are allocated vineyards for growing grapes, which they then sell to the farm owner/producer at harvest – with the funds going into a trust (SAW83). In other models, farm workers are involved in both grape growing and wine production with the farm owner/company providing technical expertise and assistance with developing the black workers' wine brand (SAW81). These projects also include community initiatives in primary and secondary education, healthcare, sports, housing, social clubs and transport-related projects.

But very few of these land-based transformation projects have been successful so far (SAW3, SAW17, SAW19, SAW22), usually combining worker ownership of parts of the land with Fairtrade certification (SAW2, SAW3, SAW54) or with guaranteed offtake by a supermarket chain (SAW34 and 53).[48] Key examples of farm worker-ownership schemes include the Solms-

[48] On BEE and transformation in the South Africa wine industry, see also du Toit et al. (2008), Ewert et al., (2006), Herman (2012, 2014, 2018), Moseley (2008), Sato (2013) and Williams (2005). Discussions on the

Delta transformation project, Bosman Adama (Herman, 2018), Elethu project and Raka Wine.[49] But in general, transformation through ownership is difficult for many family-owned operations (SAW31). As one of our interviewees put it, 'first we are BEE, then we are sustainable … we have high scores on BEE (because of our projects, learning, suppliers) but we are not compliant on ownership; it is a family business and we have decided to keep it as such' (SAW9).

The 'virtual winery' model

The majority of black entrepreneurs have entered the wine industry through the 'virtual winery' model (we also highlight this as an opportunity in Section 6.3.1). In this model, HDPs do not own land or vineyards, and are not involved in primary grape growing or even wine production. They enter through partnerships with established (often white-owned) wine producers that have vineyards and wine production and bottling facilities. While some black entrepreneurs simply buy ready-made bottled wine, others make their own wine to jointly agreed specifications with their partners (SAW3, SAW11, SAW68). However, a different model is also emerging – where a new generation of black winemakers are making their own wine in rented/contract facilities (SAW3, SAW3).

The virtual winery model through these partnerships allows black entrepreneurs to scale up by leveraging the partner's economies of scale in production, packaging material, branding, marketing, logistics, business skills, distribution networks and access to markets (SAW11). – without the need for substantial capital to set up their own production facilities. In addition, in some instances, the partners extend credit on payment of the wine – providing black entrepreneurs with flexibility to pay after sales have been made (SAW55, SAW68). Partners can also support other practical aspects of production, business skills and market access given their experience and history in the wine industry (SAW3, SAW55, SAW68).

The new entrant in these partnerships is typically responsible for creating and growing the brand, which is often for niche product spaces and linked to unique stories and messaging. In terms of who holds control over the product, there appear to be a range of views. One interviewee noted that 'the white man still owns the wine under virtual winery model' (SAW11). Insights from other interviews reveal that control is case-specific. Some entrepreneurs entering through a virtual winery have full control of their brand's production and manage the entire process (except in terms of land ownership) (SAW18), while others have experiences of partners providing stronger inputs into various aspects of wine production (SAW55).

While the virtual winery model is growing, there are still areas in which significant investment and incentives are needed (SAW11). Entrants through the virtual winery model highlight that they generally did not want to operate at the primary level of grape growing given that they do not have the skills and capabilities to farm wine grapes. Grape growing on its own is also

broader dynamics of BEE in South Africa, see also Alessandri et al. (2011), Andreasson (2006), Horwitz and Jain (2011) and Ponte et al. (2007).

[49] See https://www.dailymaverick.co.za/article/2018-08-14-the-solms-delta-way-or-how-not-to-do-land-reform/; and https://www.dailymaverick.co.za/article/2018-09-11-the-solms-delta-saga-the-perspective-of-mark-solms-and-richard-astor/

not a profitable business and the chances of success for new entrants are very low.[50] This reduces the need for large tracts of land to start a wine production business for these entrepreneurs. Given the substantial political and water-related problems around land ownership in South Africa, the virtual winery model reduces the barrier to entry related to access to land. Notwithstanding this, new entrants still require space where they can host customers for tastings and food pairings. This is important to build the brand and for exposure. Having and showcasing a small vineyard as part of the tasting experience is also visually valuable, given the growing importance of wine tourism. Until recently, black brands did not have a place where they could meet buyers and sell their products. A brand needs a brand home or facility to produce small batches of boutique style wine (SAW55).

To address these black brands' challenges, SAWITU created 'The Wine Arc' facility located on the ARC property to provide a 'brand home' for black wine producers who may not have physical or land-based facilities. The Wine Arc is a one roof/one stop place for twelve black-owned brands (and one research farm). It provides cost-sharing support in terms of market access (through a physical location to meet clients and undertake tastings), e-commerce facilities, access to labs, cellars, rootstock, testing and research and innovation facilities (SAW55). Over the past five years, SAWITU has supported around twenty black brands through providing access to these facilities (SAW18). SAWITU conducts company evaluations and assesses each brand in relation to commercial positioning/success, brand strategy and technical viability, design, packaging, story, and benchmark testing for quality. Regarding brand stories, SAWITU assesses whether a product story is creating market interest. To monitor implementation, impact and to assess outcomes and address shortcomings in their programmes, SAWITU is planning to launch the Wine Management System software in 2023 (SAW18).

Market access for black wine brands

'Black named brands' (and especially those owned by women) do not seem to have broad acceptance in the domestic wine market. According to our interviewees, these trends are partly informed by the continuing legacies of patriarchy and racism (SAW55, SAW18, SAW68). New entrants are often treated with scepticism and thus it is not sufficient for them to simply market a brand as black-owned or just compete on the strength of their 'story'. They also need to offer high quality, niche products which can compete in both domestic and export markets (SAW3, SAW81). These challenges have led to some black producers retaining or using more traditional 'white brand names' because these tend to sell better than black brand names in South Africa (SAW3). In general, it is difficult for black producers to get black wine consumers interested in their stories, as they favour established, more 'traditional' and well-known brands (SAW18, SAW68, SAW3). As stated by the wine buyer of a South African retailer, 'you have black brands that interest white customers, and white brands that interest black customers; we are missing black brands for black customers' (SAW34).

Furthermore, black producers struggle with limited confidence in aspects such as wine tasting and food pairing. For example, our interviewees pointed out that wine tasting involves identifying certain flavours such as black currant and raspberry, which many of the black producers are not familiar with simply because they were not exposed to them when growing

[50] https://www.news24.com/fin24/companies/new-central-body-for-sa-wine-industry-announced-20230119

up. Similarly, wine and food pairing is typically based on Western cuisine/food and not African cuisine/food – making it difficult for new black winemakers to relate to the consumer base (SAW55, SAW68).

The perceptions about black brands exacerbate black entrepreneurs' other challenges in accessing markets and in growing within these markets. While black producers have achieved relative success selling into international markets, especially in the UK, USA and EU, they face key challenges selling in local markets (SAW53, SAW55, SAW68). On-trade sales through restaurants are dominated by two distributors who control the list of wines that they present to restaurants for purchase. From the restaurant side, the owners or managers also control the brands that go into their wine lists. These factors together mean that black new entrants without established brands struggle to get on to restaurant wine lists (SAW68, SAW81). The owners of some of the few black brands that have managed to supply restaurants told us that large and possible 'excessive' mark-ups are charged by restaurants on their wine sales, and this further discourages consumers from experimenting with new wines (SAW45). High restaurant margins were also noted by a large and well-established wine producer, who highlighted that these needed to be lowered to grow sales (SAW31).

Off-trade sales in South Africa are dominated by the supermarkets chains (SAW81). Black-owned brands struggle to supply supermarket chains (SAW6). First, given the intense competition for shelf space in supermarket chains, less well-known and established black wine brands that do not yet have a track record of strong sales find it difficult to secure a listing (SAW68, SAW81). In the case that a brand gets listed on the supermarket shelves and does not sell, the supermarket can delist the product and this is costly for a producer (SAW3, SAW81). Second, to gain market access requires significant resources in terms of building relationships, spending time in the market, approaching supermarkets and presenting samples of products (SAW82). According to one of our interviewees, it requires an estimated ZAR 2 million to activate a brand listing in local supermarkets (SAW18). However, domestic retailers as part of their BEE commitments are starting to procure from black-owned wine producers (as we discuss in Section 6.3.2), often for their own private or house brands. This ensures guaranteed off-take and support in terms of packaging and branding for smaller black suppliers (SAW4).

While SAWITU, including through The Wine Arc, has made progress in terms of the support they provide to black wine entrepreneurs, more still needs to be done including channelling substantially more resources for transformation to hit the transformation targets earmarked for the industry. Regulatory instruments

While at first sight, the wine industry seems to be under little leverage to further transform in comparison to other sectors in South Africa where licenses and quotas are assigned by the state (as in mining or fishing), there are actually quite a number of public policy instruments that can be used for this purpose (SAW3):

(1) the Liquor Amendment is a draft legislation that will entail BEE scoring requirements (level A and/or progress towards level 1) to hold a liquor license; these licenses are needed all along the value chain except at the grape growing level (SAW4);
(2) the 'Port Agreement' between the EU and South Africa allows a quota of wine to be imported at a lower tariff level in exchange for South African producers not using the indication 'Port' on their fortified wines; in order to qualify for the quota, a company needs to be BEE compliant (the line minister decides the minimum level of compliance

needed); if you score high, you have preferential entry into the pool and obtain a decrease in duty of about 1 ZAR per litre (SAW5, SAW26);

(3) water rights allocation: in order to build a dam for water catchment, a farmer needs to field a legal application; the value of water that the dam can hold is determined by the relevant Water Board Association, which can also consider BEE principles; this is key, as in some cases water rights are even more valuable than the land itself (SAW4);

(4) preferential procurement for retailers, which has a relatively high weight on their BEE scorecards, and is especially important for retailers that are listed on the JSE; for wine sellers, it is important to get a listing with retailers, so their own BEE score counts (SAW4).

As the evidence provided in this section suggests, South Africa is replete with horizontal sustainability governance initiatives. The country is still ahead of the curve in the global wine industry when it comes to the local development and management of conservation and ethical trade standards that are attuned to local realities and history. Yet, it lags behind on carbon footprint efforts and has a long way to go on transformation. In the next section, we provide a picture of the vertical top-down drivers of sustainability governance.

3.2 Vertical top-down initiatives

3.2.1 Retailer demands on sustainability

In Table 7, we summarize the portfolio of retailer requirements in terms of sustainability that are common in the South African wine value chain. There is nearly universal agreement in the South African wine industry that many of the current top-down vertical demands for sustainability have been driven by the alcohol monopolies of the Nordic countries (Sweden, Finland, Norway) and some Canadian states (Quebec, Ontario). The Swedish Systembolaget, for example, has been seeking to increase the proportion of 'sustainable wine' they buy for over a decade. They organize tenders specifically for wines made from organic grapes and for Fairtrade wines (WIETA can qualify for Fairtrade tenders). Other retailers (and especially those based in the UK (SAW1), but also some domestic retailers in South Africa, are now starting to place similar demands (SAW34). Locally, Woolworths' suppliers must adhere to its sustainability programme called 'Farming 4 the Future' based on IPW as well as ethical standards such as WIETA.

Carbon footprint is becoming an important issue among wine buyers and retailers in the EU, partly because the EU is expected to implement carbon border adjustment measures (CBAM) in the near future. South Africa has delayed the implementation of the carbon tax law in South Africa to 2026 (the original deadline was 2023). This means that the EU may start charging carbon border adjustment tariffs against South Africa (SAW12, 49). In response to these anticipated changes, some retailers are demanding suppliers to develop five-year 'carbon plans'. One of the major wine exporters in South Africa expressed a sense of frustration with these demands, which is also shared by many others: 'What is the point? Why having a plan if there is no pathway to compliance? [The retailers] will not be able to verify the situation. All of our suppliers now have to provide a carbon plan, but it is a box ticking exercise. Supermarkets are arrogant, they can ask for anything they like. And we need to adapt or die' (SAW62).

Table 7: Main vertical top-down demands on sustainability

Retailers demands on sustainability	Origin of main demandeurs
Fairtrade certification	Northern Europe, UK, domestic
Organic and biodynamic certification	Germany, UK, Nordic countries
WIETA compliance	UK, alcohol monopolies, domestic
Lighter glass bottles	Mainly alcohol monopolies
Recyclable or greener forms of packaging	Mainly alcohol monopolies
Alternative containers (BiB, PET bottles, cans)	Alcohol monopolies (US/UK for cans)
Bulk exports	Germany, Denmark, UK
Carbon footprint	Just started, mainly EU markets

Source: elaboration by the authors

Along the same lines, the Swedish alcohol monopoly Systembolaget has started working with branch organizations to create tools for carbon calculation and reporting, and to share experiences and solutions for Scope 3 emissions (those generated outside of a firm's boundaries and along the value chain) related to packaging and transport. Eventually, they expect to develop different solutions for transport and logistics and then choose the ones that are more climate friendly (WG1; see Appendix Table 2). However, retailers are not yet focused on emissions from transport per se – they are seen as important but are not seen as the biggest contributor (accounting for 10-18% of total emissions) (WG1).

Efforts to reduce carbon emissions in the wine industry have included packaging innovations whereby producers have responded to retailers' demands by using lighter glass bottles (SAW4, SAW6). Locally, retailers such as Woolworths handle carbon issues only in relation to the bottle (SAW34). Internationally, Systembolaget has specific demands on containers (lighter glass bottles for lower carbon footprint, PET bottles, Bag-in-Box, Tetrapack) and recyclable or 'greener' forms of packaging (for closures, boxes, labels) (WG1, SAW1, SAW17, SAW26, SAW31, SAW33).

A Systembolaget representative indicated that 'for every tender, we have requirements related to certification and packaging (for example, a lightweight bottle). These specifications are different for different tenders and types of wine … We also introduced tenders for wine in PET bottles. We want to expand deliveries in Bag-in-Box: it is very efficient when it comes to climate change impacts. Size and stacking are good, and they are less tricky than pouches. The carton outside is made of recycled fibres … But the perception of consumers is still a challenge. Glass is a great material and wine can stay in it for many years' (WG1). There is also innovation taking place around screw caps (driven by the UK), pouches for wine (although these have limited consumer uptake), and canned wine (driven by the US market) (SAW6).

As an alternative to bottled wine, some importers and retailers (especially in Germany, Denmark and the UK) prefer to buy wine in bulk, which they then bottle in the EU, often for their own private labels. Bulk exports are better for carbon emissions (SAW1), as 20-ft containers are fitted with a flexibag that can contain 24,000 lts of wine. In bottles, one can only fit 10,000 lt in a 20ft container, and they are also heavier because of the weight of the glass and pallets (SAW73). With bulk shipments, however, exporters lose control of their wine (and by regulation they cannot place the South Africa sustainability and integrity label on the bottle).

Some exporters, however, manage to organize the bottling themselves in the EU and maintain a branded offering even if the wine was exported in bulk (SAW1). Another aspect much debated in the South African industry is that, when you export wine in bulk, you also implicitly 'export jobs' in the sense that the employment entailed in bottling and packaging is lost to the local economy (SAW6).

3.2.2 Fairtrade

Similar to environmental sustainability standards, social sustainability standards are essential in Scandinavian markets, especially to get into the monopoly system (e.g. in Sweden) (SAW1). South Africa accounts for 77% of Fairtrade wine sales worldwide, which are increasing significantly (SAW1, SAW33, SAW81, SAW83; on Fairtrade wine in South Africa, see also Back et al., 2019; Herman, 2012, 2018; Moseley, 2008, Overton et al., 2019). In export markets, retailers want Fairtrade because it is a globally recognized certification, while WIETA is a local initiative. Some South African producers are doubly certified (SAW1). A representative of a wine industry body in South Africa, however, argues that producers are not happy with what they get from Fairtrade in terms of financial benefits (SAW81, SAW83). 'It is all well to have projects with farm workers and the community, but Fairtrade has to pay for the farmer as well. Producers are paying fees, but the price at the consumption level is too low' (SAW1).

There are 7,000 ha of certified Fairtrade vineyard in South Africa (8% of the total area under vineyards), for an equivalent harvest of around 90,000 tons of grapes. These are farmed by about 30 certified wine grape growers a mix of cooperative members and other standalone growers and estates (SAW33) From 2015 to 2020, sales of Fairtrade wine from South Africa increased by 180% in value, with the largest destinations being the UK, Germany, and the Nordic countries. According to a representative of Fairtrade Africa, the main drivers for this growth are the Nordic monopolies, which have a strong emphasis on Fairtrade products, and the Coop retailer in the UK, which is converting to 100% Fairtrade. There are signs of an increasing focus on going towards premium Fairtrade wines, but 'big retail will always try to bring prices down' (SAW33).

Fairtrade wine is purchased with a price premium, amounting to 0.6 ZAR (0.03 USD) per Kg of grapes delivered and 0.68-0.7 ZAR (around 0.04 USD) per bottle. In 2021, Fairtrade paid a total of €1.5m in premia in South Africa (SAW33). Fairtrade premium committees at the farm level are in charge of deciding how to use this premium, and are usually made up of representatives of farm workers. Popular uses of the premium include building nurseries for children of farmworkers, educational support and scholarships, health and nutrition projects, and pension schemes (SAW33). However, there are also concerns that decisions on how to spend the premiums are not always driven by workers but by the farmers (SAW44).

Farm certification (which is carried out by FLOCert through local auditors) requires that farms comply with social and environmental standards. Social standards include meeting good labour practices, work conditions and freedom of association while environmental standards require that farmers improve soil and water quality, manage pests, avoid using harmful chemicals, manage waste, reduce greenhouse gas emissions and protect biodiversity. Certain listed chemicals are banned. Water, waste and pest management are required and enforced.

Fairtrade Africa[51] is engaged in support for farmer compliance and/or facilitating external support. Similar to WIETA, Fairtrade seeks to address challenges at the farm level including housing quality and evictions; labour issues, including overtime; industrial relations (between farm workers and manager; issues of intimidation); and what happens to the right of living on the farm when someone retires (contingency help, transition help). Some wine producers are now certified with Fair for Life, a separate and competing certification system run by the ethical arm of Ecocert (a major organic certifier).[52] One of the main Fairtrade cellars in South Africa has recently moved from Fairtrade to Fair for Life.

However, not everyone is keen on Fairtrade in the South African wine industry. One of our informants stated that 'Fairtrade should be banned because it has such a bad image – not because of bad quality, but because hardly any money makes it back to the farmer or the winery How can it be sold for GBP 7 a bottle in the UK? This means an fob price of GBP 1.5 a bottle, it is not possible to make money this way, considering the import duty, excise, supermarket chain markup … Fairtrade is taking from farmers, not giving' (SAW76). At the same time, others point out that Fairtrade can be a vehicle for other benefits, both philanthropic and commercial – and that the downward price pressure on South African wine applies to all South African wines, not only Fairtrade (SAW33). As one of the representatives of a certified winery told us, 'we get additional funding from the Coop and the Finnish monopoly on top of the Fairtrade premium. This way, we have been able to expand the primary school. Another retailer provided funds for the medical centre. These contributions are actually bigger than the Fairtrade premium fund. Fairtrade also brings in other clients because 'they can tell stories about our community projects' (SAW78).

3.2.3 Organic certification

Certification of organic grapes for the production of wine still represent a small proportion of South African production, even though demand for them is increasing (SAW1, SAW2; SAW13, SAW14; SAW30; SAW50). One of the main problems with certification from the point of view of South African producers is that it requires auditors to be sent from the EU (SAW1, SAW2, SAW82). 'It is understandable that they need to avoid greenwashing and make sure that certification is provided with integrity. But the cost is too high, plus you need different audits for North America and for the EU. The system is fundamentally unfair. If you export wine from the EU, their audits are recognized as equivalent for the US market, but we cannot use our EU certification to export to the US. It is absurd' (SAW50).

'Organic certification is really only important in Nordic markets, but it is also risky to invest in a certification if you are not sure you will win the tender anyway' (SAW1; SAW2). Many South African actors also argue that it does not pay to export organic wine. One of them, for example, told us that 'the Swedish monopoly offers too low of a price because they think there is a subsidy for organics like in EU producing countries, but this is not the case in South Africa' (SAW17).

Therefore, some argue that 'there is a disconnect between the costs of production and the price they want to pay for organic wine. Costs are higher for organics: yields are lower, you use

[51] See https://fairtradeafrica.net/
[52] See https://www.fairforlife.org

more labour and more fuel because you need to go through the vineyard more often … You should charge a higher price to consumers … But in the wine market, consumers do not see the difference, they think that wine is "natural" to begin with' (SAW17; similar views were also recorded by SAW3, SAW5 and SAW82). As one farmer put it: 'organic farming is a lot more complicated and there is much bigger management input. This is because the expertise on the production side in organics is very undeveloped. Hence, it's very difficult to find answers to problems – one can't approach universities, can't find the suppliers that are selling chemicals to help them, can't speak to a neighbour farm, etc.' (SAW82). 'You have 30% more tractor driving if you farm organically and you need to spray more times … Unless you use an electric tractor and be careful with compaction, this is a problem. Then you have copper in the soil (SAW63).

A representative of one of the main wholesalers told us that

> 'three of our farmers got certified, but … they had challenges with the certification process (had to buy organic seedlings, etc), it took extra work, the paperwork was very demanding … and then they did not get a premium. That, combined with lower yields meant that they went under. Organic is not profitable, unless you are in Elgin, where the climatic conditions are different. In dry areas, cover crops steal water from the vines and they are difficult to control, plus ploughing is more expensive. Carbon footprint is also higher, with more sprays and more tractor trips and then you have higher levels of copper in the soil. It is better to build organic matter in the soil to do regenerative agriculture and plant cover crops as much as possible in the winter, then work them into the soil in the spring … Organic grape growing for wine is not sustainable, farmers are going under' (SAW62).

Another wholesaler, however, painted a different picture:

> 'There is good demand for organic wine in bulk, but growers do not think they can farm this way. There is a lack of knowledge. Retailers are actually willing to pay a premium and those who do not pay a premium for organics tend to buy lower quality wine. Buyers understand the need to be paid more for organics. We sold two containers in bulk last year and got a 40% premium for the same quality … But you need to make buyers understand that they cannot have organic wine at the same price as conventional. It is wine buyers who make decisions, not consumers. We need to stop fantasizing about consumers, and need to work on retail buyers' (SAW73).

We were also told that some farmers practice organic farming but are not certified (SAW2). Some start off simply following organic practices without certification in the first few years until they become established. The process of organic certification places too much of a strain on the business to spend significant amount of time on the certification including the direct expense of organic certification through auditing bodies (SAW82). Hence, some producers actually do not seek certification and instead resort to personal trust with their buyers as a form of assurance. This is possible because their production volumes are usually small, but it is not a strategy that can be used in the organics export market. To export wine made from organic grapes to the Nordic countries and the UK (the main markets), certification is needed. Despite these challenges, farmers must comply and pay these costs because they need

credibility and if they do not have a certification, they cannot get entry into the organic market (SAW13, SAW50).

3.3 Vertical bottom-up initiatives

A number of individual wine operators in South Africa are engaged in sustainability-related activities and initiatives – some are latecomers to this field, but others have been doing so for many years. These vertical bottom-up approaches to sustainability are of course to be understood in connection to top-down dynamics and in the context of existing horizontal governance initiatives. What makes them worthy of distinction though is their (relative) pro-active nature – although these companies are often part of collective (horizontal) sustainability initiatives as well and may or may not be responding to demands that are placed on them by retailers. These companies have historically played a pioneering role in attempting to tackle sustainability issues.

We should emphasize that these companies represent a small proportion of the total number of players in the industry, and thus should be considered to be a vanguard of the wine industry in South Africa, not the mainstream. However, they are playing an important demonstrative role and partly explain why an increasing number of other actors in the value chain are becoming more engaged in sustainability issues. In this section, we provide a brief characterization of how different sets of these wine operators function in relation to sustainability, and what impact they may have on sustainability governance more generally (Table 8).[53]

We develop a unique typology that identifies wine value chain operators according to their *actions* – distinguishing between pro-active (broad sustainers, regenerators, social transformers, nature conservators, wealthy sustainers, and climate risk managers), reactive (sustainability reactors) and inactive (ostriches) operators. Our typology complements Howson's useful categorization of different kinds of *narratives* of certification (in what she calls the 'ethical value networks' of South African wine): as moral imperative; as market imperative; as proof of existing good practice; as persecution; as social technology; and as method of pacification (2022: 97).

[53] See also Hamann et al. (2017) for a discussion of drivers of 'greening' among SMEs in the South African wine sector.

Table 8: Characterizations of individual wine value chain operators in South Africa in relation to their approach to sustainability

Category	*Type*	#	Main characteristics	Typical discourses
Proactive	*Broad sustainers*	8	Build their brand around a broad approach to sustainability (social and environmental) and a set of philosophical principles, but are not transformed in terms of ownership	- (Heritage) moral imperatives
	Regenerators	4	Focus on organic, biodynamic and/or regenerative viticulture, often combined with circular economy approaches, with attention to minimizing energy consumption and carbon emissions	- (Holistic) moral imperatives - Proof of existing good practice (when certified)
	Social transformers	10	Focus on social/transformation initiatives around farm workers and/or involving BEE deals	- (Social) moral imperatives - Pacification
	Nature conservators	7	Focus especially on biodiversity conservation efforts	- (Environmental) moral imperatives
	Wealthy sustainers	2	Pet projects of the very rich and/or large conglomerates that operate mainly in other sectors of the economy and seek to showcase their work on sustainability	- Proof of existing good practice
	Climate risk managers	3	Approach sustainability in terms of actual and potential impact of climate change on risk, including that of supply availability	- Social technology - (Future) market imperatives
Reactive	*Sustainability reactors*	8	Move into the sustainability field because they identify new markets and/or their buyers are asking new questions or setting new demands	- Market imperatives - Persecution
Inactive	*Ostriches*	2	Are not aware of the sustainability challenges around them or are unable or unwilling to do anything about them	NA
Total		44		

Source: elaboration by the authors; categories of discourses are adapted from Howson (2022)

Of the 44 direct wine entities we interviewed, eight have built their brand around a comprehensive approach to sustainability, and are organized around a set of clear philosophical principles (including the necessity of profit). They tend to be family-owned and have been so for generations. They see sustainability as part of their heritage, couched in moral imperative discourses. They do not want to risk losing control of their operations, and thus are relatively un-transformed from a BEE ownership perspective. We call these broad sustainers.

Four of the companies we interviewed are mainly engaged in 'regenerative agriculture', an approach that combines a variety of biodiversity conservation actions with soil regeneration, in view of increasing resilience to climate change and improve the long-term vitality and health

of soils. Although many of these farmers practice organic and/or biodynamic viticulture, they do not necessarily seek certification. We call these regenerators. While in the early 2000s they were seen as a curious phenomenon, if not a nuisance (Ponte, 2009; Ponte and Ewert, 2009), they have now become quite successful and their wines sell at the high end of the quality scale, both domestically and in selected export markets. These companies, often built around a visionary individual, tend to combine regenerative agriculture principles with a circular economy approach and pay specific attention to minimizing energy consumption and carbon emissions. Their discourses are centred around (holistic) moral imperatives and, when they need certification, on proof of existing good practice (Howson, 2022).

A considerable number of companies (ten) are focused on social/transformation initiatives around farm workers (in relation to wages, living conditions, community upliftment, education, health, alcohol abuse), often linked to one or another project in this field (the Pebbles Project, Stronger Together SA, the Anna Foundation)[54] and/or are expanding the ownership possibilities of farm workers through BEE deals. We call these social transformers, whose discourses are usually rooted in (social) moral imperatives, but occasionally also in relation to pacifying social relations in their communities.

Seven others are mainly focused on biodiversity conservation – including the regeneration of flora and fauna typical of the Cape Floral Kingdom and the eradication of alien species. We call these nature conservators, who engage in (environmental) moral imperative discourses, which they sometimes also leverage to respond to changing market demands. Most of the companies included in these first four categories are family-owned.

Two wine companies we interviewed do not have to worry about profitability, as they are the pet projects of the very rich and/or of larger conglomerates that seek to showcase their good work with nature in the Cape winelands (also a good way to bring board members to beautiful places for retreats and meetings). They tend to see certification as a tool that proves their existing good practice to legitimize their operations. We call these wealthy sustainers.

Three wine companies with a corporate structure have taken up the mantle of sustainability in recent times, but mostly from the point of view of risk management and mainly in relation to the actual and potential impact of climate change (rising temperatures, dwindling water supply and increased weather unpredictability) on the supply availability of different grape varieties of the required style and quality. Their sustainability discourses are based on using sustainability as a social technology to improve competitiveness and efficiency, and are driven by (future) market imperatives. Unsurprisingly, we call these climate risk managers.

Our two last categories are residual ones, and strictly speaking do not pertain to the vertical bottom-up category of sustainability governance. We discuss them here because reaction and inaction, while not bottom-up approaches, also indirectly shape overall governance dynamics.

One category is sustainability reactors – the eight companies we placed in this group are moving into the sustainability field because their buyers are asking new questions, setting new demands and/or are identifying new markets that can be strategically opened by obtaining a new certification (market imperatives). Some of them also talk about certification (and related

[54] See https://www.pebblesproject.org, https://www.stronger2gether.org/za/, https://annafoundation.com

auditing practices) as a form of never-ending persecution on the part of buyers and NGOs from the Global North. A second category is ostriches – these two companies are either not aware of the sustainability challenges around them, choose not to act or to understand their implications, or are unable (for lack of resources or capabilities) to do anything about them (and thus they have not established any sustainability discourse).

These categories are of course not necessarily mutually exclusive, and some companies may combine different features (in Table 8, we assigned each responding company to the one category we deemed most relevant). Companies are relatively equally distributed in each category, with the exception of fewer instances of regenerators (given the extreme complexity of regenerative viticulture), wealthy sustainers, climate risk managers (which however include some of the largest players in the industry) and ostriches (because of selection bias).

In the next section, we place the picture of sustainability in South Africa in an international and comparative perspective. In the following section, we will then return to sustainability in South African wine and examine the challenges and opportunities that arise in the context of a more general picture of main trends in the industry.

4. Sustainability in the South African wine industry in a comparative perspective

4.1 The global context

Compared to other ago-food products, wine has been a relative late-mover on sustainability, with some initiatives starting in the late 1990s and the bulk of attention towards sustainability standards and certifications emerging in the past 10-15 years. Within this general picture, organic certification and Fairtrade were early movers within the wine sector, as in many other agro-food industries. Although organic grapes for winemaking are still a minor proportion of total production globally, it has been growing rapidly (Gilinsky et al., 2015: 42). Biodynamic production, whether certified or not, is also spreading worldwide, but remains a small niche (Flint et al., 2016). In addition to organic and biodynamic certification, in France and Italy small vineyards in traditional wine producing regions, such as Bordeaux and Chianti, lay claims of 'reasonable' viticultural practices or the production of 'natural wines' based on the characterisation that traditional local techniques are similar to those used in organic production. Other non-wine specific standards that the wine industry may have to come to terms with include the International Sustainability Standards Board (ISSB), which is developing a global baseline for sustainability information to be provided to financial investors and global capital markets.[55]

'New World' producing countries have been at the forefront of broad initiatives that encompass various aspects of sustainability in wine (Borsellino et al., 2016). In addition to the South African experiences examined earlier in this paper, we also find Sustainable Winegrowing New Zealand, an industry group that introduced its formal environmental management system as early as 1997, which now certifies both grape growers and wine producers on the basis of a scorecard and benchmarking. In 2014, it claimed to cover 90% of vineyard areas, of which 7% also hold organic certification (Gilinsky et al., 2015). Similarly, the California Sustainable Winegrowing Program promotes 'green' and 'sustainable' practices and has developed a certification program that 'provides verification by a third-party auditor that a winery or vineyard implements sustainable practices and continuous improvement.'[56] By 2017, around one quarter of vineyard area and two-thirds of wine production in California had gained various forms of sustainability certification or verification.[57]

Other programmes of this kind are present not only in other New World producer countries, such as Australia and Chile (Flint et al., 2016: 92), but also in Italy (Borsellino et al., 2016).[58] A comparative study of sustainability initiatives in six countries (Flores, 2018) shows that most initiatives include certifications or labels that are voluntary and that they employ qualitative methods to check whether producers meet the standards set in guidelines, but without mandating the improvement of performance. All the initiatives covered in Flores' study (2018) include the main environmental issues that are relevant for viticulture and wine production (Flores, 2018). Other reviews of sustainability initiatives find that they are no longer a source

[55] See https://www.ifrs.org/groups/international-sustainability-standards-board/#:~:text=The%20ISSB%20has%20set%20out,to%20global%20capital%20markets%3B%20and

[56] Source: https://www.sustainablewinegrowing.org

[57] Source: https://www.forbes.com/sites/thomaspellechia/2017/02/01/the-u-s-wine-industry-focuses-on-a-sustainable-future/#73c10c6d51e2

[58] Source: http://sostain.it

of differentiation (Golicic, 2022), although they differ widely in their processes, certification costs, and levels of transparency, thus making it difficult for the consumer to know the difference between them. A general lack of cooperation among them is also observed (Moscovici and Reed, 2018). Specific programs for carbon footprint are also starting to be considered in the wine industry. For example, Oregon has set up a 'Carbon Neutral Challenge' and New Zealand has developed a 'carboNZero' label. A more complete picture of the major sustainability initiatives and certifications worldwide will be available when the Sustainable Wine Roundtable (see below) concludes its benchmarking exercise.

Differently from many other agro-food products, there is currently no global certification system on sustainability for wine, although there are some international reference guidelines provided by the International Organization of Vine and Wine (OIV)[59] and the International Federation of Wines and Spirits (FIVS).[60] A recent initiative, called the Sustainable Wine Roundtable (SWR), is seeking to develop a global reference standard – if not a certification system per se. For the time being, SWR is framed as a global platform and discussion forum for producers and existing certification schemes aiming at developing collaborative action and tools on labour standards, packaging, agro-chemical use, and 'low carbon logistics',[61] with the possibility of 'developing a global sustainability reference standard for the wine industry.'[62]

The initiators of SWR in the late 2010s identified a gap in the wine industry on sustainability and sought to create a hub for information and opportunities to organize events and conferences, and to provide information and discussion fora (WG2). In 2020, they held their first conference online and a key issue that arose from it was a lack of alignment and global definition of sustainability in wine. 'There are over 40 standards at the regional and local levels, with some commonalities, but they lack coordination … There is also an inconsistent approach to packaging' (WG2). SWR first aims at benchmarking existing standards against a global reference, then at working with 'standards owners to address gaps where they exist … [and] with retailers to create a shared position on sustainability issues. The goal [is to develop] individual standards which address specific needs of different geographies, but which can be cross-compared by retailers and wine consumers. The outcome [would be] a one stop shop to support producers deliver progress on sustainability in wine and retailers on the evaluation of sustainability in wine.'[63]

On packaging, SWR is proposing a 'bottle weight pact between retail members and the increased use of alternative formats. On viticulture, it seeks to create an inputs decision-making protocol with regional variations to guide, inter alia, input choices, usage, spraying frequency and other key viticulture functions. On human rights, it wants to develop tools, guidance and capacity building for compliance.[64] SWR currently has over 90 members from 25 countries, including seven retailers.

[59] See https://oiv.org/en/technical-standards-and-documents/good-practices-guidelines/oiv-guidelines-for-sustainable-vitiviniculture and https://www.oiv.int/standards/oiv-guide-for-the-implementation-of-principles-of-sustainable-vitiviniculture-

[60] See https://www.fivs.org/environmental-sustainability/

[61] https://swroundtable.org

[62] SWR presentation at the ProWein trade fair, Dusseldorf, 21 March 2023.

[63] SWR presentation at the ProWein trade fair, Dusseldorf, 21 March 2023.

[64] SWR presentation at the ProWein trade fair, Dusseldorf, 21 March 2023.

A representative of one of the Nordic monopolies told us that 'there are major differences in climate between different regions, so it is good that we have different sustainability programs with different ideas, values and priorities. Very impressive work has been done in this field, but these programmes are often owned by branch organizations which have unique institutional and historical profiles, so it has been difficult to expand them. Consumers and retailers do not want too much diversity … The best thing is to have a unique wine but a sustainability standard that is internationally accepted' (WG1). This statement alone may suggest that, despite the variety of local and regional certification schemes, a global reference standard may be in the making – although it is not yet clear whether it will turn into a certification system with a label to be placed on the wine bottle.

For the time being, SWR is focusing on harmonization and mutual recognition. 'SWR is likely to build from what is there already, it cannot be a totally new standard. It will not be too detailed and will seek mutual recognition of different standards' (WG1). SWR is currently focusing on a benchmarking exercise, which will be followed by discussions on whether and how they may want to develop a general standard or a scorecard (WG3).

4.2 Sustainability governance in the Italian wine industry[65]

In this section, we provide some information on sustainability initiatives and governance dynamics in the Italian wine industry (with focus on the Prosecco and Valpolicella areas), which one of the authors has researched recently. This is relevant as Italy is a direct competitor of South Africa – especially in the value-for-money segment of European markets, including in key Scandinavian monopoly-controlled markets.

4.2.1 Sustainability certifications

Like in South Africa, all the broad sustainability certifications that are emerging in the Italian wine value chain (SQNPI, VIVA, Equalitas, BWA and RRR) are the result of national, and in one case, local initiatives. SQNPI (Sistema Qualità Nazionale Produzione Integrata) certification was developed by the Italian Ministry of Agricultural, Food and Forest Policy starting in 2016. It organizes various regulations that are scattered around different regions and harmonizes them in view of providing a set of guidelines for integrated production in agriculture (including for wine grapes). The SQNPI standard includes a set of 'good agricultural practices' and integrated management and is certified by accredited third party auditors (P3, IG1). SQNPI certifies the grape must and the bottled wine, which can carry the bee logo. SQNPI to some extent can be equated to South Africa's IPW in that they are both focused on integrated production and have been developed by public sector institutions.

In parallel to SQNPI, the Italian Ministry of Ecological Transition has also developed a sustainability certification specifically targeted at wine production – called 'VIVA Sustainability and Culture'. It includes technical specifications for calculating sustainability performance in vineyards and wine production in relation to four aspects: air, water, territory and vineyard (IG16). However, this certification has not taken off – as of 2021, only 79 firms had been certified.

[65] Parts of the material included in this section appear in Ponte et al. (2023) and Ponte (2019).

A third sustainability certification system that is taking hold in the Italian wine industry is Equalitas, which seeks to cover all three main dimensions of economic, social and environmental sustainability. The Equalitas standard includes integrated production management, good communication with stakeholders and communities, good practices within firms and with their suppliers, and measures against labour exploitation on farms. Equalitas offers three possible foci of certification: the farm, the wine and the whole geographic denomination (once 60% of all area under production is certified) (IG3, IG11). Equalitas has common features with some aspects of South Africa's IPW and WIETA, but WIETA has a broader and deeper engagement with working conditions on farms. WIETA, however, is missing the possibility of certification at the level of geographic denomination – even though it could achieve it easily given that most South African farms and wineries are certified. Both Equalitas and WIETA are recognized by alcohol monopolies in the Nordic countries as all-round approaches to sustainability and are accepted for qualification to selected tenders. However, South Africa also has access to an additional international sustainability certification system, Fairtrade, which is exclusive to wine producers in the Global South (mainly South Africa, Chile and Argentina).

A fourth Italian initiatives is the World Biodiversity Association's (BWA) 'Biodiversity friend' certification. Despite 'world' featuring in its name, this is a local initiative developed by a group of ecologists in Verona that helps assessing the impact of production processes on the biodiversity of production areas (in wine but also other agri-food products) (IG10). BWA is based on a 'decalogue' of agricultural sustainability covering aspects from soil fertility to water conservation and energy conservation. Its focus, however, is on three direct indicators of biodiversity in water, soil and lichens (a proxy for air quality), thus certification is based on outcomes and is agnostic on how these are reached. Similarly, the WWF Conservation Champions programme in South Africa covers conservation of biodiversity, energy and water, but has a different protocol. In both cases, the logo on the bottle is somewhat known in domestic markets, but not much in international markets.

The Prosecco DOCG consortium in Italy aims to facilitate the SQNPI certification of 50% of farmers by the end of 2022 and 100% by 2029, so they are quite behind South Africa in terms of proportional coverage.[66] The same can be said of Equalitas certification, which is the focus of sustainability efforts by the consortium of the larger Prosecco DOC area. Equalitas, however, has only certified three units so far in Valpolicella, far behind the coverage of WIETA in South Africa. In Valpolicella, the consortium originally did not line up with SQNPI and instead developed its own certification system for the sustainable production of wine grapes (RRR – Reduce, Retrench, Respect), which was based mainly on integrated crop management practices. One of the main incentives for RRR certification was provided in the regulations for the production of Amarone. Only a certain percentage of total grape production is allowed to be vinified for the highly-priced Amarone, the rest goes for the production of other, cheaper, Valpolicella wines. But if grape producers meet the RRR standard, they are allowed an extra 5% of grapes to be used for Amarone production (V8). As of 2021, 1,210 ha had been RRR-certified in Valpolicella (or 15% of the total area). However, at the 2022 Vinitaly expo a representative of the consortium announced that they were moving away from RRR

[66] Sources: P5; VWF22_11; Consorzio Prosecco DOCG, Bolle d'annata 2019. Rapporto tecnico — Distretto del Conegliano Valdobbiadene DOCG. Pieve di Soligo, p. 35.

certification protocols and instead focus on SQNPI certification (which is now awarded automatically to holders of RRR) (VWF22_3).

Like in South Africa, the Italy-specific sustainability certification systems covered so far are fairly recent and cover a broad set of aspects and indicators. These were predated by two other certification systems – for biodynamic wine production and for the organic production of grapes for wine. Biodynamic wines remain a very small proportion of production in both Prosecco and Valpolicella and producers have a somewhat cult status. Although there is a certification system for biodynamic, many producers do not seek it and instead communicate a specific overall philosophy of production directly to their buyers and consumers (similarly to what is happening in South Africa). Organic production of grapes for wine has been only tepidly pushed by the consortia in both Prosecco and Valpolicella and is still of relatively limited uptake – 3.3% of the planted area in Prosecco DOCG and 10% in Valpolicella, even including areas under conversion.[67] This is lower than the national average of 18% (VWF22_22), but higher than in South Africa (less than 1%).[68] Several producers in the hilly areas of Prosecco argue that it is very difficult to make organic Prosecco, and nearly impossible to make it biodynamic due to high rainfall and thus the need to spray fungicides (P1). In Valpolicella, several of the large wine producers argued that they need to have organic wine to be able to win tenders with the Scandinavian monopoly buyers. Just like in South Africa, this has been a major driver of current organic conversion efforts (V10), which however are still relatively limited (the same is happening in South Africa). One producer claimed that:

> 'It is technically feasible to make organic wine in Valpolicella, although it needs more manual labor and more hours of machine operation, because one needs to go more often to the vineyard. In the first years of conversion, we observed a lowering of yields (-15%) which affected the balance sheet of the farms – also because farmers had to buy more machinery for mechanical weeding, etcetera. This is also why organic wine should cost more . . . Yet, it is difficult to sell organic wine as supermarket chains demand the same price as for non-organic wine, and the pressure to cut corners is definitively there to meet these demands' (V4).

Other producers confirmed that 'the consumer understands the value of organic, but the supermarket buyer wants it at the same price. It is absurd! . . . We even sell some of our organic wine without the label. It is better than selling it at the same price as conventional wine' (V12). Another stated that 'sometimes it does not make sense from a financial point of view, but we do it anyway to make buyers happy' (V8). These views on the feasibility and profitability of organic certification align to those we gathered in our case study of South Africa.

In sum, the main sustainability certification systems that are emerging in the Italian wine sector (and in Prosecco and Valpolicella in particular) are mainly the result of national and local initiatives by various ministries and industry consortia, in similar ways of what we observe in South Africa. Organic and biodynamic certifications, which were developed internationally, are

[67] Sources: Consorzio Prosecco DOCG, I futuri del vino italiano — Qualità, sostenibilità e territorio. Il presente e le sfide del Conegiano Valdobbiadene Prosecco Superiore DOCG, 2020, p. 40; and Consorzio per la Tutela dei Vini Valpolicella, Valpolicella Annual Report 2021, p. 42.

[68] Source: https://www.sawis.co.za/info/download/BI_Daagliks_30092021.pdf

still relatively small. These have not been strongly requested by wine buyers, with the important exception of monopoly buyers in Scandinavia and Canada.

4.2.2 Sustainability as going 'back to tradition'

Small wine producers in Prosecco and Valpolicella show less orientation toward sustainability certification in comparison to large ones. Rather, they tend to link environmental stewardship to traditional methods of training vines and harvesting. Two small Valpolicella producers, for example, indicated the following:

> 'Our vineyards are planted with the Veronese pergola system, which allows you to make fewer treatments and thus you help the environment and actually save in costs. The pergola protects the grape bunches during the hot hours of the day, which is important because Corvina is a delicate grape . . . The Guyot system has become popular because it allows you to harvest mechanically once you have harvested selected grapes for Amarone by hand. With the pergola system, all harvesting is manual' (V1).

> 'Guyot allows a more intensive form of planting . . . This leads to more compacted soils, rows that are closer to each other and thus more interventions which means more tractor passages, each time placing more weight on the soil and compacting it further. Compact terrains lack enough oxygen and have lower water retention properties, they also have less capacity to allow ionic exchange. As a result, the vine has higher needs from a point of view of nutrition and water. Forcing the vines this way means that they are more prone to be affected by disease, have shorter lives and lose the typicality of flavour that comes from a long-term match with their natural terrains' (V3).

Other small producers reinforced these arguments. One stated that they want to 'eliminate the use of plastic string to tie the vines – there are now threads that are biodegradable in six months. You can also use willow branches. In a newly established vineyard, we are using bamboo and wooden poles instead of metal and plastic poles. We are also making an effort to restore and maintain drywalls, which are very good natural environments for useful insects. It is quite beautiful to set up a vineyard like this' (V5).

In Prosecco areas, similar arguments are made – with distinctions between the hand harvesting of 'heroic agriculture' in the hilly areas in the Valdobbiadene DOCG area vis-à-vis the mechanized harvesting that takes place on the plains. However, these distinctions are discussed in relation to the use of manual labour and related challenges, rather than in connection to environmental issues (see details in Ponte, 2021).

Another aspect of sustainability governance as going back to tradition is explicitly or implicitly related to the preservation of biodiversity. As one of our interviewees said, there are three relevant aspects of biodiversity in viticulture. The first is about viticulture as monocropping: 'Old-style viticulture was not a monoculture system. There were rows of grape vines but they were 20 metres from each other because they needed to pass through with the oxen plough. In between vines, you planted maize, vegetables, whatever' (V3). The second aspect is the natural biodiversity of the ecosystem within which the vineyard is integrated: 'This is preserved

not only by avoiding herbicides, but also leaving the grass to grow high and not cutting the grass when it is still full of wildflowers. It is important to maintain an equilibrium between species where there is no predominance by one kind over the others' (V3). A third element of biodiversity in viticulture has to do with the diversity of grape varieties: 'Grape vines have the great property that they self-select . . . They are good at making genetic variants. It is very important therefore to avoid homogenization. This is why it is essential to rediscover the genetic diversity of vines in the fields, to preserve the variants that have developed in time . . . Everyone thinks of biodiversity in terms of the ecosystem, but they forget the biodiversity of vines' (V3).

We find similar trends in South Africa, but they are manifested mainly by a small number of producers practicing regenerative viticulture (mainly under our categorisation of vertical bottom-up initiatives). What stands out in South Africa is the Heritage Vineyard certification system (a horizontal initiative), which does not have an equivalent manifestation in Italy because tradition is usually embedded in the setup of geographic denominations of origin. Also, the heritage initiative in South Africa is focused on the age of the vine first, and only on related practices to cultivate to 'grow old' as a corollary.

4.2.3 Technological innovation

Spurred by incentives at the national and regional levels, in both Prosecco and Valpolicella one of the main set of processes implemented by large players to improve their environmental footprint is related to technological innovation. These processes include solutions linked to the language of 'Industry 4.0' technologies adapted to viticulture, or 'Viticulture 4.0', such resistant varieties, precision spraying machines, mechanical defoliage and precision viticulture. Several producers have started to plant new vineyards with resistant varieties, which need only few agro-chemical applications (IG12, IG15). However, they also complain that the consortia regulations do not allow them to use these varieties for DOC wine production (V5, V12).

Several large producers and the consortia of both Italian districts also reported an increase in the use of lower emissions vehicles, LED-based illumination systems, solar panels, geo-thermal energy, cold accumulation systems, ecological materials for packaging, the use of pomace for distillation and of pruning biomass for compost, energy and biochar production. The use of renewable energy and better packaging materials is also increasing in both districts. Representatives of one of the large cooperatives active in the Prosecco DOC area said that traditional sprayers are disappearing, and that many farmers now use the more efficient ones that better target the vine (P13). A large operator also argued that these technologies are 'helpful to achieve better traceability, which is becoming increasingly important to manage the supply of grapes and the blending of special batches' (P18).

In Valpolicella, large operators reported a similar set of approaches:

> 'We protect the environment with specific agronomic techniques, such as mechanic weed control and the use of pheromones . . . We also have a circular economy approach beyond the vineyards. For example, we use thermoregulators for winemaking . . . One of the main current challenges is related to packaging, especially light glass, recycling and other materials – such as paper instead aluminum capsules . . . The monopoly buyers in Scandinavia are pushing hard on

materials and packaging. This trend is there and we cannot ignore it, although demands are very different in other export markets. We follow a logic of continuous improvement' (V2).

These sets of observations suggest that there are important technological innovation dynamics at play in Italy, especially among large operators. The big difference between Italy and South Africa is not the quality of research (which is quite advanced in both countries),[69] but that in Italy various layers of government provide important incentives for the purchase of Viticulture 4.0 technology. In South Africa, this support is lacking.

4.2.4 Articulation of local politics

What we refer to as articulation of local politics in the Italian context has two main aspects. The first is related to the major health and environmental problems that the spraying of agro-chemicals for viticulture is causing in local communities. The second is discussed under the rubric of viticulture expansion and land use change.

The first aspect became quite controversial when, in November 2016, the Italian public broadcaster RAI 3 released a documentary on Prosecco, highlighting the negative health impacts of agro-chemical spraying in the core Prosecco DOGC area, where vineyards are literally planted everywhere, including next to residential areas and schools.[70] The documentary also refers to protests by local committees against what they see as the indiscriminate application of agro-chemicals. A follow-up documentary released in 2017 includes footage with the director of the DOC consortium – where he indicates that the new rules promoted at the local level have banned the use of glyphosate, thus going beyond EU and Italian regulatory standards.[71] This is indeed a sign of environmental governance, but one that is based on reaction to pressure from local committees, not from international buyers of Prosecco (Basso and Vettoretto, 2020; Ponte, 2021; Visentin and Vallerani, 2018).

Valpolicella has avoided such negative publicity, and indeed a representative of one of the main cooperatives argued that 'sustainability is important to keep good relations with local populations' (V8). Another interviewee stated that they have had 'similar problems as in Valdobbiadene, with local populations complaining about the spraying of agro-chemicals, but without the media attention so far. Local committees protested with their municipal administrations first. The municipalities wanted to contain the possible reputational damage and worked to promulgate local regulations to limit the use of agro-chemicals, but not all municipalities have done so' (V9).

The second aspect of local politics relates to current attempts seeking to slow or stop area expansion. Differently from South Africa, viticulture area expanded dramatically in the 2010s in both Prosecco and Valpolicella – followed by moratoria on new plantings. Other scholars

[69] On Innovation in the South African and Italian wine industries, see Cusmano et al. (2010) and Giuliani et al. (2011).
[70] RAI 3 Report, La frazione di Prosecco, Part 1 (2016). Available at: https://www.rai.it/programmi/report/inchieste/La-frazione-di-prosecco-82f70b9c-ce75-461d-b98d-cb5b8894fd58.html
[71] RAI 3 Report, La frazione di Prosecco, Part 2 (2017). Available at: https://www.youtube.com/watch?v=WWAc4UIB8CQ

have highlighted the problematic nature of what they call 'viticulture sprawl' in the Prosecco DOCG area – with vineyard expansion replacing traditional cropland, grassland and woodland (Basso, 2019; Basso and Vettoretto, 2020). Something similar is also occurring in Valpolicella.[72]

Sustainability governance (for both large and small producers) has taken place in close articulation with local politics in Italy – in response to accusations of environmental and health hazards arising from viticulture expansion and intensification. Local protest committees and media exposure (in Prosecco) and fear of the same (in Valpolicella) are partially reshaping local regulations and practices on the use of agro-chemicals and allocation of planting rights – clear signs of horizontal governance at play.

While in Italy these political dynamics are mostly related to health and the environment at the local level, in South Africa they are mainly embedded in conflicts and discussions at the national level – on labour conditions on farms and on the limited transformation of the industry. These resulted in both protests and activism against poor farm labour conditions and in international media and NGO exposure.[73] Many of our interviewees in South Africa demonstrated clear frustration regarding the incessant negative media exposure of their industry internationally, and framed this as 'unfair' vis a vis the also problematic labour conditions of (often illegal) immigrants in Italy, Spain and California. However, the media and NGOs are now showing increasing interest in labour and environmental conditions of production in Italy as well. Most recently, an Oxfam report[74] for the Swedish Systembolaget chronicled human rights violations in selected farms in four regions of Italy: health and safety risks, excessive working hours, instances of forced labour, restrictions of freedom of association, and poor, unsafe and unsanitary housing – together with low wages, lack of access to remedy, gender discrimination and discrimination against migrant workers.

[72] Source: Consorzio per la Tutela dei Vini Valpolicella (CTV), Valpolicella Annual Report 2021. Available at: https://www.federvini.it/images/Dossier_Valpolicella_Annual_Report_2021.pdf

[73] See the documentary 'Bitter Grapes' by Tom Heinemann: http://www.bittergrapes.net and a recent report from Finnwatch on Finnwatch on Human rights in South African wineries. https://finnwatch.org/fi/julkaisut/ihmisoikeudet-etelae-afrikan-viinitiloilla

[74] See Oxfam's report on working conditions on wine farms in Italy https://oxfam.se/wp-content/uploads/2022/11/Oxfam.The-Workers-Behind-Swedens-Italian-Wine.2021.pdf

5. Communicating sustainability

The overall theme of the CapeWine 2022 fair was 'Sustainability 360 – Better wine for a better future', which indicated the strategic intent on the part of industry bodies to highlight South Africa as a supplier of 'sustainable wine' to trade journalists, to the political system but especially to wine buyers (both domestic and international). Given this overall framing, it is relatively unsurprising that the sustainability thematic focus was embedded in the marketing material and the visual presentation of the trade fair was organized explicitly around social, environmental and transformation issues in the South African wine industry. The collective visual design of the exhibition space also included many banners placed around the trade fair floor highlighting the many sustainability initiatives that are active in the sector.

As stated by the Siobhan Thompson, the CEO of WOSA during the opening seminar, the wine 'industry is facing a lot of uncertainties caused by drought and climate change and this is what this conference is all about – developing a framework of sustainability. The theme for this year's fair is Sustainability 360 and it comprises all three pillars – planet, people and prosperity'. CapeWine 2022 included a rich programme of seminars and thematic tastings around 'sustainability' – including sessions on transformation, regenerative viticulture, organic & biodynamic wines, conservation, biodiversity, fair trade, old vines, and canned wine.

Trade fairs are an opportunity for wine producers and marketers to communicate their approach to wine styles, aesthetics, branding and sustainability to a specialist audience. From a research perspective, it is therefore a perfect space to discern what kind of approach of companies take in sustainability communication. As part of the fieldwork we carried out at the wine fair was a one-by-one inspection of all the exhibitor stands that had been set up by individual or groups of wine producers and marketers. We took note of whether there was any visual communication embedded in the features of the stand and/or on the bottles -- and what kind of representation was used (a logo, pictures, overall design, videos, etc). Thus, we approached sustainability communication in broad terms (including environmental, social and transformation issues) but in narrow terms in relation to delivery (the stand or the bottle communicating in immediate ways, rather than brochures that may or may not have been visible or available throughout the three days of the fair).

Out of around 450 exhibitors at CapeWine 2022, 61 (or 13.5% of the total) visually communicated one or another aspect of sustainability in their exhibition stands. While this proportion is significant, it is far from indicating a 'mainstreaming' of sustainability communication. This does not mean that the other exhibitors do not practice sustainability one way or another, only that they chose not to communicate it at the fair.

Of the 61 that communicated sustainability in one way or another, 41 did so through only one signifier (a logo, a picture, some writing on the stand itself), 17 with two signifiers, and only three with three or more – for a total of 98 sustainability signifiers. Only two exhibitors designed the whole stand to primarily communicate sustainability. Some of the others did so primarily through selected images or storytelling on posters/writings/back-label of wine bottles (a total of 19). The large majority, however, communicated sustainability only through logos of existing initiatives without additional information or storytelling (40).

In terms of thematic areas, most stands focused narrowly on single issues related to conservation (21) and old vine certification (17), others focused on transformation/social issues (7) or organic and other environmental issues (6); the rest took a broad/comprehensive approach to sustainability (10). In general, these can be interpreted as relatively 'light' forms of engagement in sustainability communication, when done at all. But how does South Africa's wine sustainability communication fare in comparative terms? We answer this question in two brief steps. First, we compare CapeWine 2022 to Vinitaly 2022, then we examine sustainability communication at the most important global wine fair, ProWein in Dusseldorf in 2023.

The picture on the incidence of sustainability communication at the 2022 Vinitaly wine fair among selected Italian producers is not dissimilar to the one observed among South African producers that emerged at CapeWine 2022 fair. One of the authors applied the same system of observation and recording of sustainability communication used at CapeWine 2022 and applied it to all Prosecco and Valpolicella exhibition stands in the Veneto pavilions at Vinitaly (these did not include those located in the dedicated organic pavilion). Only 18% of all stands in the Veneto pavilions had any signalling (33 out of 184). When there was signalling at all, reference to one or another certification or logo was the preferred method (in 80% of instances), with organic certification accounting for about half of these (Ponte et al., 2023). While the proportion of exhibitors engaging in sustainability communication in 'their' domestic fairs is similar in the two countries, it is also clear that South Africa has a longer history of engagement in sustainability standards and certification in wine, and a much more diversified set of 'sustainability stories' to tell, which could be better leveraged.

One of the authors also attended what is considered *the* global wine trade fair, ProWein in Dusseldorf in 2023. He applied a similar method of observation and interpretation of sustainability communication as for CapeWine 2022 and Vinitaly 2022. In this case, given the massive number of exhibitors from all over the world, a precise count on sustainability signalling for each exhibitor and country or region was not possible. But, in general, a clear conclusion is that sustainability communication played a much lesser role at ProWein than at Vinitaly and CapeWine. The little that was flagged on sustainability (organics, biodynamics, natural wines) was placed in a special 'organic' area that covered half of one of the 13 halls used for the expo (which also included stands on biodynamic wines and natural wines). The ProWein program of seminars and thematic tastings featured very little sustainability content (although the word featured in some titles), with some exceptions – such as the special tastings of fungus resistant grape varieties, a seminar on sustainability in Prosecco, and a seminar run by the Sustainable Wine Roundtable.

South Africa's exhibition space was placed together with other 'New World' producers. The common aesthetic, branding and messaging organized by WOSA did contain some sustainability content (depictions of the SA sustainability and integrity seal, pictures of happy farm workers), but much of the focus was on beauty and nature (pictures of proteas, tourist attractions, Cape Dutch architecture) and on attractive images of viticulture and winemaking (pristine vineyards, bunches of grapes, interiors of wine cellars and piles of oak barrels). Beyond the collective branding exercise, the proportion of individual exhibitors which signalled one or another form of sustainability (14 out of about 100 exhibitors) was fairly similar to that observed at CapeWine. Only two had the whole stand designed to attract attention to sustainability as a whole – and very little effort was dedicated to present the one unique offering that South Africa can provide, Heritage Vine certification.

In comparison, the brand signalling of Italian producers at ProWein (a much larger presence) had very minimal sustainability content, and was rather focused on: 1) luxury, Tuscan-style villas, sleek design and elegance; 2) mountain and/or volcanic viticulture; 3) the uniqueness of places and geographic indications; and/or 4) a combination of tradition, heritage, family, rustic imagery, and craft.

6. Challenges and opportunities in the South African wine industry[75]

In this section, we first briefly summarize the key comparative strengths and weaknesses that arise in the South African wine industry from a sustainability perspective, which have emerged from the analysis we have carried out so far. Second, we discuss other challenges and opportunities which were raised by the interviewees. While some of these are unique to the wine industry, many extend to other agriculture and agro-processing businesses in South Africa.

6.1 Comparative sustainability strengths and weaknesses

In the previous section, we reflected in some detail upon a series of comparative strengths that the South African wine industry has from an international perspective, and in particular in comparison to Italy. These include:

- the higher proportional coverage of IPW and WIETA in terms of vineyard and wine production;
- the availability of Fairtrade wine, which is reserved to wines produced in the 'Global South';
- a relatively long history and sophistication of biodiversity conservation efforts;
- a unique certification system of Heritage Vineyards that is paying important premiums at the farm and cellar levels, especially for Chenin Blanc; and
- a very strong wine tourism portfolio of offerings, which can be leveraged to multiply the channels of action and communication on wine sustainability directly to the consumer.

At the same time, we can also identify some comparative weaknesses:

- efforts to measure and contain carbon emissions are still tentative and may create problems if the EU decides to apply carbon adjustment measures at the border for imports;
- labour conditions are still problematic and lead to regular media and civil society exposure, although more attention is now being paid to these issues in other producing countries;
- the still limited degree of transformation within the industry, which was mainly a major issue domestically but is now seeping into the international realm, given that a specific quota of wine exports to the EU needs to be compliant with a minimum BEE score;
- organic and biodynamic wines are still a very small proportion of the total in South Africa, in a context of growing interest for them;
- 'natural wines' are not (yet) a visible feature of the South African wine landscape; and
- bulk wine exports are not allowed to receive the South African Sustainability & Integrity logo once they are bottled at destination wine, even though bulk buyers would like to have it; this is technically possible (traceability is assured for exports of Fairtrade and WIETA wines already, SAW10) and would give South Africa a unique selling point in the bulk market where it competes with Chile, Australia and Argentina.

[75] Parts of this section draw from a working paper by das Nair and Chisoro (2023), Participation of SMEs and women-owned businesses in the South African wine value chain, undertaken for Oxfam South Africa.

This picture, however, cannot be complete without embedding these factors in a broader reflection of challenges and opportunities of the wine industry more generally, which we provide in the rest of this section.

6.2 Challenges

6.2.1 Access to key routes to market

Accessing markets at a fair price is critical for the economic sustainability of the wine industry. It further has implications for environmental and social sustainability because the ability to invest in these areas is strongly dependent on returns made from sales through the different routes to market.

Off-trade routes to market

A key route to market for wine producers is via the off-trade retail sales channel, both in South Africa and in export markets for South African wine. This channel is dominated by supermarket chains (SAW81).[76] Supermarket chains, given their scale and reach, are often important 'gatekeepers' to a large customer base. In the case of South Africa, there is only a handful of large supermarket chains with extensive store networks within the country and in southern Africa more broadly. The top five supermarket chains control 64% of grocery retail sales in South Africa. In the case of export markets, large supermarket chains are also important routes to wine customers, particularly in Europe.

Given this gatekeeper role, the relationship between supermarkets and wine producers and suppliers and the negotiation process on prices and terms and conditions is critical. Past studies in the southern African region have highlighted the challenges that SME suppliers in particular face in accessing supermarket chain shelves. This varies with the different supermarket chains, but in general, these challenges typically stem from the skewed bargaining power between supermarkets and suppliers and is reflective of the buyer power that large supermarket chains have. Because of this buyer power, they can pass on costs and risks to suppliers, often including the costs of investing in environmental and social sustainability standards (das Nair et al., 2018; das Nair, 2018; 2019; das Nair and Shedi, 2022).

To list with supermarket chains, a producer must have a strong brand and maintain high quality (SAW 3). Quality refers to, among other attributes in the wine industry, reputation, consistency in what the consumer gets and making sure consumers get good value for money (SAW 81). While larger, well-established wine brands are able to 'push back' or use the threat to walk away from sales through supermarkets (SAW 31), new entrants and smaller players without a 'must-stock' strong brand (whether a premium brand or a well-established value brand with high sales) are not always able to negotiate trading terms with supermarkets in their favour. Terms and conditions in the wine industry include rebates, discounts and in-store promotions (SAW82, SAW6). One interviewee (a well-established winery) explained that these charges can be 'steep', amounting to a fixed 22% for them (SAW31). Another winery noted that

[76] See also Competition Commission of South Africa (2019). Grocery Retail Market Inquiry Final Report. Available at http://www.compcom.co.za/wp-content/uploads/2019/12/GRMI-Non-Confidential-Report.pdf

supermarkets take a margin of 33.3% (SAW67). One interviewee described it as follows: 'supermarkets squeeze a company for price and strangle a company for quality' (SAW 83). For black-owned brands attempting to enter and grow, and which are not yet well known in South Africa, securing a listing with supermarkets is particularly difficult (SAW55, SAW6, SAW68 and SAW81).

Building and maintaining relationships with supermarkets is crucial and requires significant resources (SAW82). As indicated earlier, an estimate given was that it requires ZAR 2 million to activate a brand listing in local supermarkets (SAW18). Another interviewee told us that they had to spend around ZAR 3 million in marketing in the local market, but only sold ZAR 1 million. According to this and other interviewees, it is important to keep up marketing efforts to always stay on consumers' minds and to expose the brand (SAW83, SAW31). Building a brand and a footprint in the wine industry takes a long time, given the over 100 different brands on the shelf, according to one player. For new entrants, this interviewee notes that 'there is a very big fight to get shelf space' and that 'one needs to be quite relentless' with marketing efforts to stay on supermarket shelves (SAW82). It is hard to get a listing, and just as hard to maintain that listing. If sales are not strong, the brand gets delisted (SAW81). The reputation for good quality is gained partly through winning awards in competitions and conducting extensive wine tastings (SAW81, SAW82), both of which require substantial investments. One interviewee highlighted that it could cost around ZAR 1,500 to ZAR 2,000 for each entry of a wine into a competition, and if the wine wins, the producer has to pay for the right to use the sticker that comes with the accolade (SAW6).

As we also highlight in das Nair and Chisoro (2023), pricing points are a problem for emerging wine producers in both local and export markets (SAW3). Smaller players need high prices for their wines given lack of scale economies. This impacts their ability to compete against much larger producers with scale (SAW3). In general, supermarkets both locally and internationally have a price ceiling and put pressure on suppliers to drive down prices (although they have a few wines that are sold at high prices given the brand) (SAW81). Notwithstanding the challenges with selling through supermarket chains, there have been some significant success stories of supermarket chains stimulating new black entrants into the local market, including through house brands. This is discussed below in the opportunities section.

Competition law and policy in South Africa has evolved to tackle abuses of buyer power by large buyers in food value chains which can result in the squeezing of margins of SMEs. Amendments to the South African Competition Act in 2018 (effective 2020) prohibit the abuse of buyer power and price discrimination by dominant firms against SME businesses in selected industries (of which agro-processing is one). The buyer power provisions aim to protect SME suppliers, including wine suppliers, from a range of conduct by dominant buyers such as supermarket chains which extract rents from them through unjustifiable fees, charges, and onerous terms and conditions (das Nair and Chisoro, 2023).

The challenges faced in accessing supermarkets in export markets are similar to those discussed above for the South African market. An estimate provided was that 80% of South African wines exported moved through supermarket chains, with chains in the UK carrying large volumes, such as Tesco, Sainsburys and the Coop (SAW31). One interviewee corroborated that selling directly to supermarkets in export markets was important because this is where volumes are. However, they further noted that selling through supermarket

chains 'requires certain price levels, and charges can be strangling' (SAW22). As we previously quoted, another noted that 'supermarkets are arrogant, they can ask for anything they like; you need to adapt or die' (SAW62). A few interviewees highlighted that they did not deal directly with supermarkets in export markets, instead they went through importers (SAW76, SAW6). Importers are better able to see what is going on with the product on the ground and understand the market and strategies to deal with supermarkets (SAW6).

On-trade routes to market

We understand that wine sales to restaurants in South Africa predominantly go through merchants and distributors. There are two large distributors who appear to have a degree of control over the list of wines that they offer restaurants, one of which is vertically integrated with an established wine group of companies (SAW31). It can be difficult for smaller and newer brands to get on to restaurant lists through these distributors (SAW68, SAW81). These distributors are also said to charge a significant margin (SAW51), with one estimate being that they 'take 35% of the trade price' (SAW67). This affects the returns that wine producers can make.

It is also difficult to get onto restaurant wine lists, which are determined by owners and managers. Particularly for new brands that have not yet established themselves in the market, it can be challenging to get restaurants to try them out. Interviewees have noted that restaurant markups are excessively high, and this discourages consumers from experimenting on new wines and hampers growing sales (SAW45, SAW31)

6.2.2 Monopoly supply of glass bottles and carbon footprint implications

After the second producer of glass bottles, Nampak Glass, was sold to Isanti Glass 1 in 2019,[77] the supply of glass bottles in South Africa has been essentially controlled by a quasi-monopolist, Consol Glass. Several concerns were raised by interviewees around the lack of availability of glass bottles and their increasing cost, as all wine producers are directly or indirectly reliant on Consol Glass (SAW1, SAW2, SAW22). As one interviewee noted, 'the whole industry is reliant on monopoly glass supplier - Consol. This is a big, big problem as there is not enough glass' (SAW31; similar views were also expressed in SAW5 and SAW53). Another highlighted that there was a shortage of see-through bottles in 2022 and that 'you get what you get when it comes to glass' (SAW57). The glass shortage was exasperated during the COVID-19 pandemic as furnaces were shut down and Consol's expansion plans halted due to low demand because of the alcohol sales ban (SAW2, SAW5). Even though the ban has been lifted, and the expansions are continuing, some industry players are of the view that it will be some time before the supply constraint is eased (SAW19 and 49). This has resulted in upward price pressure for glass, a necessary input for bottling wine. One producer estimated that Consol's prices increased by 14% during the Covid-19 period (SAW5). This also lowers the competitiveness of bottling in South Africa, negatively affecting premiumisation strategies as it is more cost effective to export wine in bulk.

[77] Owned by Kwande Capital and SABSA Holdings, which is the holding company of the South African Breweries (SAB) and a wholly owned indirect subsidiary of Anheuser-Busch InBev SA/NV). http://www.nampak.com/Investors/Media-Release/2019/nampak-sells-glass-business-for-an-estimated-r, accessed 4 March 2023

A lack of adequate supply locally means that glass bottles may have to be imported, but this has carbon footprint implications (SAW 17 and 20). However, it is not necessarily the case that imported bottles have a higher carbon footprint as it also depends on the energy used to make them (coal in South Africa, a renewable energy mix in some EU countries). Local production, on the other hand, creates local jobs – an aspect that should be considered in an overall approach to sustainability. As highlighted earlier, carbon footprint will be of greater consequence for the industry going forward as key export markets begin to demand transparency on it.

A lack of effective competition in the supply chain in terms of local inputs can negatively impact competitiveness in the wine industry in South Africa. Industry participants may have to recourse though the South African Competition Act to address some of the challenges regarding pricing of glass.

6.2.3 Global shipping challenges and inefficient ports in South Africa

Global shipping routes are dominated by a few, powerful players, and even prior to the COVID-19 pandemic which saw large upsurges in shipping rates, there were concerns that collusive conduct was prevalent.[78] One of our interviewees explained that a global shipping crisis was 'a long time coming', and that the pandemic simply exacerbated it (SAW6). During the pandemic, 60% of the world's shipping containers were reportedly held up in the USA, with long delays in offloading. Demand and supply of containers was highly skewed, resulting in shortage of containers and surging of prices. The shortage of containers is also attributed to a historic lack of investments. This caused delays of 3-4 weeks on certain routes (SAW5), with knock-on effects in getting wine on supermarket shelves on time (SAW72). An interviewee suggested that most of the rents in the wine supply chain were extracted by shipping companies and booking agents (SAW5). Another noted, 'shipping lines are making a killing, especially on the East-West trade' (SAW26). One wine exporter suggested that shipping costs from South Africa have escalated five to ten times (SAW6). This reduces the competitiveness of South African wine in global markets.

The problem is further compounded by shipping lines bypassing Cape Town harbour given inefficient port operations (SAW6). Poor port infrastructure maintenance, operational inadequacies, machinery breakdowns and the inability to withstand bad weather conditions have resulted in container stack dates being longer than average: 7-10 days long instead of 3 days (SAW6), especially in fruit season when fresh fruit gets priority (SAW6). Furthermore, according to an interviewee, Cape Town harbour has three berths, of which only one is functional (SAW26). As a result of these inefficiencies, in addition to shipping lines skipping Cape Town harbour and not offloading containers, container availability is impacted. The port of Saldanha Bay as an alternative is not viable as it remains closed, and road freight to Windhoek harbour is prohibitively expensive for the transport of wine (SAW6). These challenges add to costs for exporters, hampering exports from South Africa (SAW22, SAW31).

The massive ports and shipping challenges that South African exporters face hinders the competitiveness of the wine industry in global markets. Recognising these challenges faced by

[78] See for instance, https://www.competition.org.za/ccred-blog-competition-review/2015/11/22/shipping-cartel-fines-in-south-africa

agri-businesses generally, a critical theme in the recent Agriculture and Agroprocessing Master Plan (AAMP) is around increasing efficiency and handling capacity at South African harbours to grow exports (AAMP 2022; 39).

6.2.4 Limited access to finance

A common challenge for many players in agro-processing in South Africa, and particularly for SMEs and black-owned wineries in the wine industry, is the lack of finance and poor access to commercial and development finance options. Without a history of winemaking and a track-record, it is difficult to get approvals for funding. It takes a long time for a new entrant to become established in the wine industry, and new entrants have to absorb the sunk costs of building a brand. One interviewee noted that it can take ten years to become established in the wine industry (SAW81). Even once they enter, working capital is a problem, especially when trying to scale up. Maintaining an adequate reserve for working capital is made difficult if lead buyers impose long payment terms, especially in export markets (for example, the US takes 90 days to pay according to some interviewees) (SAW55, SAW68).

6.2.5 Building brands

The difficulties in building a brand have been discussed earlier in this paper, especially for HDPs and women. These are even more pronounced for new black entrants who may not have the rich history, culture, expertise, and networks handed down from generation to generation. The challenges go back to, and are perpetuated by, a lack of education opportunities in the viticulture space historically for HDPs (SAW55). Also, the structure of the industry remains largely male dominated with 80% of wine farms still owned by (white) men (SAW47). As highlighted in the experiences of black entrants in Cape Wine 2022, black brands are often treated with scepticism (SAW3). Black consumers of wine also favour established, 'traditional' and well-known brands, making it difficult for new black winemakers to enter the market. This will largely require a shift in customers' perceptions.

Accessing routes to market is also difficult for black brands, and as one interviewee noted, 'not many supermarket chains may be willing to put up a marketing budget' for new entrants. Also noted by this interviewee was that there are not many black wine buyers or purchasing managers for supermarket chains who push for black brands on shelves (SAW68). However, there have also been some progressive strategies by lead supermarket chains in sourcing wine from black-owned companies. We discuss these under opportunities below.

6.2.6 Profitability

Ultimately, the long-term economic viability of the wine industry in South Africa is about addressing the systemic and protracted low profitability of its grape growing operations (see Section 2), especially those that are not vertically integrated into wine production. But even at the winery level, a lot of financial stress is evident in the industry – denoted from the recent wave of foreign acquisitions. One of our interviewees stated the following: 'Running a winery is almost like having an NGO: if you make too much money, you get taxed too much; you are basically trying to make enough to take care of your people; it's about lifestyle more than economics; you are not an investor in the wine industry, you are a wine person' (SAW70). Another stated: 'there are wineries that are not making money from wine but making money

from other businesses for example, real estate or wine tourism. These wine producers simply keep the wine business because they are passionate about it' (SAW81).

One of our informants argued that 'the only businesses that have the chance to survive are those that source in high yields areas (30-40 tons/ha) to produce basic wine and those who cater for the top end of the market. The middle range operators have no survival prospects … The South Africa wine development strategy says that you need 10% ROI to survive, but it is actually heading towards 1% -- how do you grow in these conditions? Only if you explore creating new value adding opportunities' (SAW19).

These observations circle back to some of the key issues we highlighted above in relation to sustainability. The following quotes from our interviews are examples of a very widespread set of opinions in the industry:

> 'There is a history of low price for South African wine; retailers are asking for more sustainability but price is stuck at rock bottom; they are not paying more. Economic sustainability is important to understand the challenges of social sustainability' (SAW10).
>
> 'Sustainability has to make sense financially: you can be biodiverse as much as you want, but if you go bankrupt sustainability goes down the drain as well' (SAW71).
>
> 'There are too many audits, we have had enough! Here goes another ZAR100,000 to just have the opportunity to sell … You just buy the ticket for the show' (SAW66).'
>
> 'If you do not make any profit you are not sustainable' (SAW9).
>
> 'Moving to a green economy is only possible if you are a billionaire and you have money available – that way you can afford it … Billionaires can spend their money on many things, making their businesses "green and black", but the regular guys can't afford a lot of these things' (SAW4)

Many of our interviewees pointed out the lack of support from government to the wine industry in comparison to other producing countries. This was also evident in the alcohol bans that government instituted during Covid. They argue that the government does not understand the difference between operating a wine business from a liquor business – during the first week of hard lockdown, the government was confused about the wine operations: 'it was harvesting season, and yet other agricultural sectors could continue harvesting, but grape farmers were not allowed to harvest for a full week; it was a large harvest in 2020, and this created a crisis' (SAW64). Industry participants also point out that 'industry needs better cooperation and push government to draw better bilateral trade agreements like Chile has done' (SAW72). This also speaks to the need for mutually beneficial and collaborative engagements between industry and government to ensure industry support.

Profitability has been affected in part by several external shocks such as the COVID-19 pandemic, which saw extreme lockdown measures in South Africa, with alcohol bans and restaurant shutdowns, and in other countries that South Africa exports to. The Chinese market, for example, which showed growth potential, declined given the extended lockdown measures

imposed by the Chinese government.[79] The Russia-Ukraine war and the shortage of gas in Europe has also made investors nervous, affecting exports to Europe.

Rising input and logistics costs such as glass and shipping (as discussed above), and the cost of energy have also affected the industry, with the ongoing electricity crisis requiring accelerated measures to secure alternative energy sources. According to Vinpro, increases in excise duties around early 2021 further puts pressure on primary grape producers if retailers do not adjust shelf prices accordingly.[80]

A problematic profitability profile and lack of government support has also led to a recent wave of foreign investment, which is seen by many as a challenge, rather than an opportunity. 'They are getting hold of cheap land and labour; they are scooping up lots of properties of all sizes. The question is, will they help South Africa? What is their commitment to the country?' (SAW64)

6.3 Opportunities

Notwithstanding the numerous challenges faced by both established players and new entrants in the wine industry, our interviews revealed some success stories that can provide pointers of opportunities that are arising in the industry. We discuss these here and draw lessons from them - particularly from policy and strategy perspectives.

6.3.1 New entry models: virtual wineries

We explained in some detail the virtual winery model in Section 3.1.6. The virtual winery model can provide a stepping stone for new entrants, but this is only one part of the game. The brand still needs to be established, and while new entrants can bypass land ownership (which is riddled with difficulty in South Africa due to political and water-access problems), access to a 'brand home' is important to build the brand. Tracts of land with small vineyards and space to host tastings and food pairings are important for visibility and exposure. As highlighted, SAWITU, through The Wine ARC, aims to provide this type of brand home for black wine makers to produce, test and market their wines, and to allow for tastings – but it is still serving a very small portion of the industry.

A lack of resources to support more black businesses to develop their brands and their networks, and to facilitate their access to markets, limits achieving transformation targets. Complementary, long-term strategies are required to provide an eco-system of support to new black entrants. This entails access to quality education and training in the wine industry (both technical and commercial), in addition to access to patient finance. It also entails more targeted campaigns to get exposure to markets through trade shows and promotions. Joint initiatives such as the recent black-owned South African wine brands participation at Vinexpo America are examples of the kind of support needed for brand exposure. In March 2023, sixteen black-owned wine brands from South Africa represented the growing diversity of South African wines in New York. This was an initiative jointly driven by Wesgro (the Cape Town and Western Cape Tourism Trade and Investment promotion agency as part of its Export

[79] Source: https://www.bizcommunity.com/Article/196/786/235172.html
[80] Source: https://vinpro.co.za/liquor-sales-open-but-wine-industry-hit-with-other-setbacks/

Advancement Programme), SAWITU and the Department of Trade, Industry, and Competition (DTIC) (das Nair and Chisoro, 2023).

The AAMP explicitly highlights the wine industry as one in which intervention is required for greater inclusion (AAMP, 2022). As part of the AAMP, a wine industry value chain roundtable has been proposed which seeks to 'monitor, evaluate and advocate for a sustainable, inclusive wine and beverage industry' (AAMP 2022; 23). Models of virtual wineries with good prospects of success for black entrants offer valuable insights to the roundtable on avenues to scale up black wine businesses (das Nair and Chisoro, 2023).

6.3.2 House brands and off-take agreements with domestic supermarket chains

Earlier we highlighted that some supermarket chains in South Africa have recently taken significant steps to increase their procurement from black-owned wine producers. One large supermarket chain has effectively 'sponsored' HDP worker ownership through a guaranteed offtake agreement for their house brands. This example illustrates the value of having market access certainty in terms of the investments that black producers can make on the back of this. Such strategies by large, lead buyers are a positive step towards effective BEE in food and beverage value chains, and are in line with the Agriculture and Agroprocessing Master Plan (AAMP) with respect to the role of large supermarket chains in facilitating access and the upgrading of black suppliers.

As part of its BEE commitments, one large supermarket chain we interviewed aims to move all its boxed wine to black wine producers (SAW34). This supermarket chain entered into an agreement with an established wine producer, who in turn created an entity which is 51% owned by a trust of its workers. The workers' trust does not own any land or cellar facilities, but the strategy is to use the established wine producer's facilities and logistics backbone for the workers' trust to produce boxed wine for the supermarket chain. The 'Bag in Box' house brand agreement with the supermarket chain will see a phased movement of production by HDP worker-owners over time to allow them to build the required capabilities and expertise – eventually to fully take over. By ensuring a guaranteed offtake, costs and risks of entry are lowered. Over time, as the entrant gains expertise, they may be able to supply supermarket chains with their own brand (SAW53). The other way in which the supermarket chain approaches BEE procurement is through brand collaborations (co-branding of the supermarket and producer names on labels) (SAW34). We found another example (in the public domain) of a different large supermarket chain partnering with a black-owned brand. One of the Wine Arc Brands has benefited from a partnership with the Shoprite Group, allowing it to sell its 'Lerato' brand wine through the chain's extensive store network across Africa. Such off-take agreements open up local and regional markets for the brand.[81]

These examples highlight how large, lead retailers through their position of gatekeepers to consumers can substantially impact the structure of supplier markets through facilitating new entry and supporting HDP entrepreneurs. Not only do these types of deals facilitate entry, they also provide support in terms of more favourable payment and settlement terms (SAW53). Given that large retailers and agro-processors have explicitly committed in the AAMP to

[81] https://www.laricmal.com/2019/09/17/bright-future-ahead-for-enthusiastic-wine-entrepreneurs/, accessed on 22 March 2023

promote and support SMEs (mainly black, women and worker-owned enterprises) in agro-processing value chains, these examples provide valuable insights for the industry and policymakers on what works and what does not in terms of effective and substantive transformation in the industry. These examples also complement commitments that retailers have taken to accelerate their enterprise and supplier development programmes. In the AAMP, retailers have in principle agreed to spend at least 3% of their net profit after tax on enterprise and supplier development programmes, over and above their current mandatory spend as part of B-BEEE requirements (AAMP 2022; 59).

6.3.3 Sales to other African markets and emerging domestic markets

Earlier in this paper we showed that exports to other African countries have increased significantly after 2009, albeit from a small base. The rest of Africa was also highlighted by many of interviewees as showing further growth potential. One large player explained that selling to the rest of Africa was a more attractive proposition than attempting to premiumize in other markets and trying to compete with other New World wine producers like Chile, Argentina and Australia. This was, according to this interviewee, because producers in South Africa do not receive the kind of state support that wine producers in these other countries do in terms of market access and subsidies. This player's strategy was therefore to increase focus on other African countries through offering a total beverage portfolio. This player highlighted that growing exports into Africa requires innovation: 'you can't copy your EU wine export business model and make it work for Africa, you need to do something dedicated and unique' (SAW19, SAW45).

Countries where potential for growth was reported to us include those in the SADC region, particularly for boxed wine and other lower priced wine (SAW34, SAW31), and Kenya, Tanzania, Uganda, Ghana and Nigeria (SAW2, SAW5, SAW31). Interviewees also highlighted that the prospects for Africa are improving with the Africa Continental Free Trade Area (AfCFTA) agreement coming into effect, and with tourism reviving after the pandemic. But they also pointed out that greater market activation initiatives are needed, combined with training and education on the continent (SAW2). Several interviewees highlighted that they faced challenges with some countries in Africa, such as Angola and Nigeria, in terms of missing payments and fraudulent businesses (SAW2, SAW31, SAW9 and 51).

There are opportunities in the emerging domestic markets too. Some new, niche products have been developed for the young, trendy, emerging black middle-class consumer. One interviewee highlighted how they have tailored their MCC range to create a demi-sec offering, branding the product as a 'nectar' to attract young consumers, especially women. The branding, bottling and labelling are opulent to attract this demographic (SAW9, SAW51). The young, black urban population is considered image- and brand-conscious, and attracting this relatively untapped market presents an opportunity for growth. One interviewee gave an estimate that only 3% of this market has been captured so far (SAW31).

6.3.4 New packaging forms

South Africa has seen some innovations targeting emerging consumers of wine. The 'bag-in-box' (BiB) concept was launched to deal with surplus wine during the lockdown period of the pandemic and this proved to be very popular. Other new products launched included 1.5-litre bottles and wine coolers (SAW 34). 'Spritzers' which are seen as a healthier alternative to wine have also been introduced into the South African market (SAW 34). Other healthier options newly lunched or ramped up include low alcohol wines (SAW 5) and organic wines (SAW13 and 50; SAW 5). Finally, canned wine is also emerging, and has both health and sustainability attributes. The single serving can appeal to the conscious drinker, as well as to an outdoors lifestyle (camping etc.), and the recyclability of the can makes it more environmentally friendly. However, so far it has not taken off as much in South Africa as in other countries like the US and the UK (SAW 77).

6.3.5 New venues of diversification, value addition and long-term sustainability

Some key observers of the South African wine industry told us that confidence is increasing: (1) more styles that are characteristic of different places are emerging; (2) old vineyards are bringing to the fore the expression of a sense of place; (3) the Western Cape is increasingly seen as unique, a region that can produce massively different styles because of a multitude of climatic conditions; (4) a younger generation of winemakers is leading, who share a lot with one another (SAW56); (5) new pruning techniques are being introduced, which can lead to massive savings because they lengthen the lifespan of vines and spread out the replanting schedules (SAW17); and (6) some winemakers are also starting to make wine in ceramic pots (SAW4). In other words 'the South African wine industry is one of the most exciting in the world right now' (SAW56). South African wine is 'winning big awards and the quality is considered to be very high. It is an industry with knowledgeable innovative people, but we are not yet moving from the bottom price points' (SAW64).

There is a differing set of views when it comes to wine premiumization strategies in the industry. One view is that South Africa needs to sell wines for higher prices in general, and needs bigger brand leaders in the international market at the right price, like the Australians and Chileans have done (SAW57). 'South Africa needs big brands that demand higher prices, so others can piggyback on them' (SAW64). Others suggest that premiumization should be built upon the strength of the very well developed and sophisticated wine tourism industry, but that producers also need to be better at selling stories – including terroir, microclimate, biodynamic and regenerative viticulture (SAW71). A different perspective on premiumization is that South Africa should be playing mainly a niche market role, based on quality, site and regional specificity instead of selling cheap wine at volume and in bulk – given the low profitability of grape farming for wine (SAW64, SAW72). A third perspective is that bulk wine of clean quality is in demand anyway, and it allows operators to manage cash flows; therefore, whatever happens at the top end of quality, there is space for cheap bulk wine and that other producing countries that sell cheap wine are also able to sell very expensive wines.

One of our respondents also argued against the constant flow of complaints from wine industry operators:

> ‘Wine is part agriculture, part luxury. You farm at an agricultural scale, but you sell luxury like a Fendi bag. You have to understand the luxury side of wine and the agricultural side of production. You need to add value to the product and thus take a knock on the yield. I understand the gripe from farmers: the cost of audits etcetera, but you need to be better at increasing your price. Yet, it is a competitive industry. So, stop complaining and find ways of doing it better, or get out … If the consumer is not paying more, then you need to be more efficient and creative. Look at Concha Y Toro in Chile: they are efficient at scale, deliver high quality at reasonable price. They are a gold standard for many, a very clever model’ (SAW63).

Whether better prices are being paid for higher quality wine or not, the general view in the industry is that quality has increased dramatically in the past 10-15 years, together with a diversification of styles. In particular, old vine wines are transcending regions and styles. Journalists are very interested in them and they attract interesting premia, especially for Chenin Blanc. In terms of styles, ‘although in South Africa we are still making icon wines with lots of power and traction, lots of oak … we are also making more elegant wines, with older oak, less extraction, we are letting the vineyard talk. These are exciting wines from a newer generation of winemakers who want a light imprint on the wine. This is an expanding segment of the portfolio’ (SAW23).

An indicator of the upward trajectory of quality is that Platter (the most influential guide for South African wines), only awarded 26 wines with a 5-star rating back in 2007. Now they are more than 200. This also shows in the results of competitions – while ‘in the past 30% of South African entries were not even tasted as they were not good enough, now they all tend to be tasted’ (SAW23). At the same time, one of the key wine journalists we interviewed stated that the ‘Master of Wine examinators still think that there is not enough regionality within South Africa to make wines recognizable in blind tastings (such as Paarl or Stellenbosch). The industry should also work with a new generation of social media influencers, both domestically and internationally, instead of scoffing at their apparent lack of knowledge or palate … Reaching a new generation of consumers is tied to being able to influence the influencers’ (SAW23).

Many of our informants also expressed the opinion that, especially for smaller producers, the key to value addition is embedded in wine tourism, in leveraging beauty, terroir and location. ‘It’s all about aesthetics, restaurants … When somebody visits, they feel history, tradition and a visual connection of the vineyard with the actual wine. Visitors want authenticity and spend more for that. Wine in the property tastes different than when drank anywhere else’ (SAW70). Others argue that a connection and sense of place and terroir should be combined with better communicating biodiversity and conservation -- and with bringing nature into the tasting room to build memories and facilitate story-telling. One of them argued that, from this perspective, a new aesthetic of the vineyard is also needed:

> ‘We want to move away from “dead vineyards” to a more biodiverse situation with better soils … I think that if you look at a vineyard, the classic view in South Africa is that it has to be with pristinely clean rows and a trimmed canopy. It is quite impressive, but if you really look at what happens it’s actually quite dead in the middle of the row underneath the vines. You get the growth and you get the fertilizer and you get the water, but it is obviously an aberration and you’ve got so much carbon that is released into the air because people are saying it should be

> pristine, so they are constantly keeping it clean … But what we have seen in many places in the world is that cover crops actually are a really big benefit and you shouldn't cut the cover crops off or till them into the soil … So now we are actually rolling flat all these cover crops … and they can actually inhibit weed growth … The soil still gets the benefit of having more moisture … So, there's a lot of benefits to having what we viewed in the past as a "dirty vineyards" … And the financial benefits of using less fertilizer and less water are immediate' (SAW20)

Regenerative viticulture can be an important venue for not only value addition, but long-term sustainability as well, and this starts from the perspective of preserving soil health as key for plant resilience, especially in view of climate change. 'An increase by 5% of the humus content in the topsoil will increase resilience of the plants by 300%, so in the long term it pays off' (SAW13).

> 'The key to regenerative farming is that, in the short term, we are farming with grapes; but in the long term we are farming with soil …We need a new look at biodiversity: 30% of all species are already extinct; it is an exponential trend; currently, there are 200,000 plant species alone that are threatened by vineyard expansion … Microbial terroir is not just about the physical part (chemistry of the soil) but also about the biological content of the soil, and this adds an additional variable to terroir; you need to link it all up ... This is where land caring and land sparing can meet and help viticultural production on multiple levels: to improve quality but also to reduce risk, to increase sustainability and also self-sufficiency. You need to take care of both biodiversity and apply regenerative agriculture principles. It is not one or the other; it is not enough to protect wilderness, you need to integrate nature holistically in the farm … But agro-chemical companies have no interest in this, and their prices are increasing very fast. Small farmers struggle to stay in the game, and they are bought up by larger companies so they reproduce industrial agriculture – it's a vicious circle. And because you destroy biodiversity, you will need larger and larger farms to keep up' (SAW50).

7. Conclusion

South Africa has been a sustainability pioneer in the global wine industry. A complex assemblage of independent initiatives and regulations have been devised domestically since the late 1990s, which are thus 'South-driven' and expected to be better tuned-in to local realities and contexts than global standards. We find that this is not necessarily the case. The existence of both domestic and international initiatives has not automatically eased the local environmental impacts of viticulture and winemaking, nor necessarily improved working conditions at farms and cellars – although some steps forward have been taken. Locally-driven transformation initiatives have not resulted in substantial and more inclusive participation and ownership by historically disadvantaged persons (HDPs), with outcomes a far reach from the industry targets.

In this working paper, we distinguished between sustainability initiatives that are driven by industry associations, civil society groups and/or government (horizontal sustainability governance) from those that are undertaken proactively by individual suppliers (vertical bottom-up governance) – and examined how they interact with the strategies that are enacted by global lead firms (vertical top-down governance).

Several horizontal governance initiatives seek to address the past and current exploitation of labour on farms and the de facto exclusion of black entrepreneurs – but have had limited impacts so far. Vertical top-down governance, which is generally key in driving sustainability improvements along value chains, is of limited help here – as it rarely covers ownership and access issues. Some vertical bottom-up initiatives have included the spin-off of vineyards to farm workers, with mixed results – but very rarely have they included co-ownership of winemaking facilities. The most visible and successful examples have focused on preferential procurement for BEE suppliers and the provision of training, upskilling and educational opportunities – but have been limited with respect to ownership.

At the same time, many grape growers and wine cellars are under increasing financial pressure and are selling their assets or are moving into other crops. Skyrocketing operational costs and vertical top-down demands on sustainability put additional pressure on margins. The potential cost saving features that producers may benefit from in the longer-term require upfront investment costs in an environment of high interest rates and low profitability. At the primary grape growing level, profitability has been below economically sustainable levels since at least 2013, and the gap has been widening. Escalating costs at the primary level permeate into the winemaking level in vertically-integrated operations, in turn affecting their profitability. The increasing financial pressure especially at the grape growing level has serious implications for black landowners who have limited resources to make key investments.

Some of the more successful vertical bottom-up sustainability initiatives tend to be carried out by wealthier operators who do not need to worry too much about profitability in wine (as they may have other economic activities or operate in the wine sector for personal prestige reasons), or by mavericks who can embed their approaches into a framework of uniqueness and high quality – mostly for elite domestic and international markets. These forms of 'sustainability supplier squeeze' (Ponte, 2019) have obvious implications for the working

conditions of farm workers, as adequate profitability is a necessary (but not sufficient) condition for ensuring decent work (Finnwatch, 2023; Moseley, 2008).

In general, we observe that the South African wine industry lags behind on carbon footprint efforts and on transformation – but is still ahead of the international curve on conservation, heritage vineyards and social/labour *certification* (which per se does not automatically entail better labour conditions). Yet, it has little commercial success to show for it. This situation arises partially from dynamics that the South African industry has very little influence on – chiefly, the fact that some aspects of sustainability have become part of a 'must have' package that large retailers and importers/distributors now take for granted and pay little or no premium for. This leaves little space for sustainability-driven differentiation and value addition for South African grape and wine producers. Additionally, international shocks and challenging domestic factors compound this situation – including the high cost and high carbon content of electricity (when provided at all), poor functioning of ports and infrastructure for logistics, expensive shipping, a domestic monopoly supplier for glass bottles, high costs of imported inputs, a lack of affordable finance, increasing excise duties and labour costs, and very limited government support for the industry in comparison to other producing countries.

In other words, South-driven sustainability governance instruments, despite their pervasive nature and sophistication in South Africa, have not been able to soften the blow of North-driven factors and other more general domestic structures. Acquiring and maintaining compliance with sustainability standards and certifications is expensive. Often, multiple standards need to be met to access different markets, and this adds to costs. Grape and wine producer margins are further squeezed when large buyers exert their superior bargaining position to force purchase prices down and demand onerous terms and conditions. One important exception is South Africa's Heritage Vineyard certification system, which has so far attracted important price premia. However, it is communicated in terms of producing wines of unique qualities, not in terms of sustainability.

Despite the challenges faced by the industry, a number of opportunities emerge. One opportunity pertains to new modes of entry for HDPs in the form of virtual wineries. This model is providing a valuable steppingstone for black wine entrepreneurs to enter and participate in the industry. Without the need to own land, cellar facilities or related infrastructure, virtual wineries allowed these players to produce and sell their wines through partnerships with established wine producers that have vineyards, wine production and bottling facilities, as well as substantial industry experience. With further support, this model has the potential to be scaled up and improved.

Other opportunities that the study found included the procurement of wine from black-owned businesses by retailers in South Africa. Some supermarket chains have recently taken significant steps to increase their procurement from black-owned wine producers, effectively 'sponsoring' new entry through guaranteed offtake agreements for house brands, black brands or co-branded wines. These examples highlighted how large, lead retailers through their position of gatekeepers to consumers can substantially impact the structure of supplier markets through facilitating new entry, investments and supporting HDP entrepreneurs.

In terms of new markets for South African wine, the rest of Africa appears promising and within the domestic market, new, niche products have also been developed for the young, trendy,

emerging black middle-class consumer. There are opportunities to further tap into these markets. There are also exciting new and innovative directions that the South African wine industry is taking in terms of more styles that are characteristic of different places. Initiatives to preserve old vineyards are bringing to the fore the expression of a sense of place as well as contributing to higher quality wines. The Western Cape is also seen as a unique region that can produce very different styles because of a multitude of climatic conditions, and this can be more effectively capitalised, in conjunction with the potential to further grow wine tourism in the province.

We further undertook an international comparison to get a sense of how South Africa fared in comparison to Italy. We observed that both countries had sustainability certification systems emerging as a result of national and local initiatives. In both countries, internationally developed organic and biodynamic certifications were still relatively small. Both countries also undertook high quality research, but a major difference between them is that the Italian government provides various levels of support and incentives, while in South Africa, this support was lacking. We found that South Africa is ahead of Italy in several areas, such as a higher proportional coverage of sustainability certification (IPW and WIETA) in terms of vineyard and wine production; the availability of Fairtrade wine; sophisticated biodiversity conservation efforts; Heritage Vineyards certification (which has important premium implications at the farm and cellar levels) and a strong wine tourism industry. However, South Africa lagged behind in other areas such as measuring carbon footprint, which is problematic if the EU decides to apply carbon border adjustment measures for imported South African wine; ongoing concerns around labour conditions, although more attention is now also being paid to these issues in other producing countries; and weak transformation as highlighted earlier.

In terms of how South African communicated its sustainability efforts with domestic and international buyers, consumers and trade journalists, we found that that the relatively 'light' forms of engagement in sustainability communication in the individual exhibitor stands in the Cape2020 wine fair was a missed opportunity to showcase and leverage South Africa's long history of engagement in sustainability standards and certifications and its highly diversified set of 'sustainability stories'.

Overall, our findings suggest that sustainability per se does not seem to be paying off commercially in the South African wine industry, especially for farmers. With increasing consumer awareness and growing demand for environmentally sustainable products, some sustainability investment costs could be passed on to consumers through higher prices, but this is difficult because of the value-for-money global perception of South African wine. While larger and more established producers with well-known or premium brands might be able to absorb these costs, without adequate support many South African wine and grape producers struggle to continue accessing global markets.

Therefore, a broad set of value addition strategies need to be put in place or strengthened, including those coupled with terroir and biodiversity, wine tourism, regional wine identities and nature conservation. At the same time, a group of globally-marketed South African brands could act as a vehicle for rising the floor of wine prices for everyone – including for bulk exports, which are still key in ensuring cash flow for many cooperative and private cellars. The wine industry is struggling in South Africa, especially at the level of grape farming. At the same time,

there is new dynamism emerging – related to wine quality and styles, regenerative viticulture, wine tourism, exports to other African countries, a growing black middle-class domestic market and the emergence of a cadre of innovative black winemakers. These opportunities could be best realized with appropriate and stronger support from government, like in competing producing countries – in exchange for a faster and deeper process of transformation in the industry and further improvements in labour conditions.

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Appendix Table 1: List of interviews (South African wine industry)

Interview #	Date	People interviewed	Function(s)	Type of actor
SAW1	02/11/21	1	communications director	industry association
SAW2	15/03/22	1	communications director	industry association
SAW3	17/03/22	1	director of enterprise development	industry association
SAW4	22/03/22	1	CEO	private cellar
SAW5	22/03/22	1	export manager	producer cellar
SAW6	23/03/22	1	manager	wholesaler
SAW7	23/03/22	1	director	NGO
SAW8	24/03/22	1	sales and marketing director	estate
SAW9	24/03/22	1	director	private cellar
SAW10	24/03/22	1	CEO	NGO
SAW11	25/03/22	1	chairman	industry association
SAW12	25/03/22	1	director	consulting company
SAW13	28/03/22	1	owner	private cellar
SAW14	28/03/22	1	principal	training institution
SAW15	29/03/22	1	CEO	NGO
SAW16	29/03/22	2	operations manager and export manager	distributor
SAW17	28/10/22	1	head of sales	producing wholesaler
SAW18	29/03/22	1	operations manager	industry association
SAW19	30/03/22	1	head of corporate strategy	producing wholesaler
SAW20	30/03/22	1	head of sales	producing wholesaler
SAW21	30/03/22	1	executive manager	research institution
SAW22	31/03/22	2	COO & Owner	wholesaler
SAW23	31/03/22	1	wine master, writer	wine journalist and taster
SAW24	31/03/22	1	lecturer	wine educator and taster
SAW25	31/03/22	1	IPW director	regulator
SAW26	01/04/22	1	financial manager	producer cellar
SAW27	01/04/22	1	owner	investor
SAW28	04/04/22	1	managing director, cellar master	private cellar
SAW29	04/04/22	1	director	NGO
SAW30	04/04/22	1	freelancer	wine journalist
SAW31	05/04/22	1	sales director	estate
SAW32	05/04/22	3	destination director, researcher, head of research unit	government agency
SAW33	05/04/22	2	commercial manager, senior programme officer	sustainability certification
SAW34	06/04/22	1	wine buyer	retailer
SAW35	06/04/22	1	associate professor	research institution
SAW36	06/04/22	1	professor	research institution
SAW37	12/04/22	1	director	importer of SA wine
SAW38	22/04/22	1	director	NGO
SAW39	05/10/22	1	project manager	NGO
SAW40	05/10/22	1	education officer	NGO
SAW41	07/10/22	1	systems manager	producer cellar
SAW42	07/10/22	1	sales and marketing director	estate
SAW43	07/10/22	1	owner	private cellar
SAW44	05/10/22	1	director	NGO
SAW45	06/10/22	1	owner/winemaker	government agency
SAW46	06/10/22	1	owner	BEE wine
SAW47	06/10/22	2	CEO and project manager	BEE wine
SAW48	07/10/22	1	sales manager	BEE wine
SAW49	11/10/22	1	head of corporate strategy	producing wholesaler
SAW50	12/10/22	1	owner	private cellar
SAW51	07/10/22	1	director	private cellar
SAW52	13/10/22	2	winemaker and assistant winemaker	estate
SAW53	13/10/22	2	managing director, tasting room manager, BEE shareholder	BEE wine
SAW54	13/10/22	1	communications director	BEE wine
SAW55	12/10/22	1	owner	BEE wine
SAW56	14/10/22	1	winemaker	estate
SAW57	14/10/22	1	export manager	private cellar
SAW58	14/10/22	1	specialist pruner	service provider
SAW59	19/10/22	1	owner	marketer
SAW60	21/10/22	2	compliance officer	private cellar
SAW61	24/10/22	1	owner and director	estate
SAW62	24/10/22	2	production director and group winemaker	producing wholesaler
SAW63	24/10/22	1	owner and director	wholesaler
SAW64	25/10/22	1	COO and chief winemaker	private cellar
SAW65	26/10/22	1	managin director	producer cellar
SAW66	26/10/22	3	CEO, marketing manager, winemaker	private cellar
SAW67	21/10/22	1	owner	estate
SAW68	24/10/22	1	brand owner, director of sales & marketing	BEE wine
SAW69	27/10/22	1	international sales and marketing manager	producer cellar
SAW70	27/10/22	1	head of marketing and sales	estate
SAW71	27/10/22	2	head of sales and cellar master	private cellar
SAW72	31/10/22	1	production manager	wholesaler
SAW73	31/10/22	1	owner and CEO	wholesaler
SAW74	31/10/22	1	owner	label designer
SAW75	01/11/22	1	cellar master	private cellar
SAW76	02/11/22	1	chief operating officer	private cellar
SAW77	02/11/22	1	owner	wholesaler
SAW78	03/11/22	2	project manager and Fairtrade officer	NGO
SAW79	03/11/22	1	systems manager	producer cellar
SAW80	03/11/22	1	owner	private cellar
SAW81	12/11/22	1	general manager; marketing and information officer	estate
SAW82	16/11/22	1	owner	estate
SAW83	12/11/22	1	marketing manager	estate
SAW84	18/10/22	5	owners, HR director, viticulturist, cellar master	private cellar
Note: categories of wine producers as listed by SAWIS				

Appendix Table 2: List of interviews (Italian and global wine industries)

	Code	Date	Type of actor	Position of the interviewee
1	P1	20/10/20	Wine producer	General manager, owner
2	P2	20/10/20	Wine producer	Marketing manager
3	P3	20/10/20	Wine producer	General manager, owner
4	P4	20/10/20	Research institution	Professor
5	P5	20/10/20	Geographic appellation consortium	President
6	P6	20/10/20	Geographic appellation consortium	Communications officer
7	P7	26/10/20	Geographic appellation consortium	President
8	P8	26/10/20	Geographic appellation consortium	Director
9	P9	26/10/20	Geographic appellation consortium	Communications officer
10	P10	16/11/20	Farm labour union	Secretary general
11	P11	16/11/20	Farm labour union	Former inspector
12	P12	16/11/20	Farm labour union	Secretary of confederation
13	P13	22/01/21	Cooperative	Director
14	P14	22/01/21	Cooperative	Director of production
15	P15	22/01/21	Cooperative	Marketing and export manager
16	P16	23/01/21	Wine producer	Owner
17	P17	23/01/21	Wine producer	Marketing manager
18	P18	29/01/21	Wine producer	Owner
19	P19	29/01/21	Wine producer	Owner
20	P20	29/01/21	Wine producer	Marketing manager
21	P21	12/02/21	Geographic appellation consortium	President
22	P22	19/02/21	Wine producer	Owner
23	V1	15/04/21	Wine producer	Owner
24	V2	29/04/21	Wine producer	General manager
25	V3	04/05/21	Wine producer	Owner
26	V4	04/05/21	Wine producer	Director of wine production
27	V5	06/05/21	Wine producer	Owner
28	V6	06/05/21	Wine producer	Owner
29	V7	06/05/21	Wine producer	Communications and marketing director
30	V8	06/05/21	Cooperative	Enologist, quality manager
31	V9	06/05/21	Geographic appellation consortium	Technical department
32	V10	06/05/21	Geographic appellation consortium	Technical department
33	V11	07/05/21	Wine producer	General manager, owner
34	V12	07/05/21	Wine producer	Owner
35	V13	31/05/21	Wine producer	Communications and marketing director
36	V14	07/07/21	Wine producer	Owner
37	V15	08/07/21	Wine producer	Marketing manager
38	V16	08/07/21	Wine producer	Owner
39	V17	08/07/21	Wine route association	President
40	V18	08/07/21	Wine producer	Owner
41	V19	09/07/21	Wine producer	Owner
42	V20	09/07/21	Grape supplier	Owner

43	V21	29/06/22	Wine producer	Enologist
44	V22	29/06/22	Wine producer	Owner
45	V23	07/07/22	Wine producer	Owner, marketing manager
46	IG1	22/01/21	Sustainability certification	Director
47	IG2	09/07/21	Winemaking input supplier	Owner
48	IG3	17/06/22	Sustainability certification	President
49	IG4	27/06/22	Winemaker association	President
50	IG5	28/06/22	Research institution	Consultant and researcher
51	IG6	29/06/22	Research institution	Professor
52	IG7	30/06/22	Sustainability auditing firm	Product certification officer
53	IG8	30/06/22	Sustainability auditing firm	Product certification officer
54	IG9	30/06/22	Wine industry association	Director, consultancy and training
55	IG10	30/06/22	Sustainability certification	General manager
56	IG11	01/07/22	Sustainability certification	Technical support officer
57	IG12	01/07/22	Research institution	Researcher
58	IG13	01/07/22	Sustainability certification	Chairperson of the board of directors
59	IG14	07/07/22	Sustainability certification	President
60	IG15	07/07/22	Research institution	Researcher
61	IG16	07/07/22	Sustainability certification	Professor
62	IG17	11/07/22	Media company	Executive vice president
63	WG1	21/06/22	Monopoly importer	Sustainability manager
64	WG2	27/06/22	Sustainability certification	Outreach and development manager
65	WG3	27/06/22	Sustainability certification	Consultant
66	WG4	01/07/22	Sustainability association	Climate change director
67	WG5	27/03/23	Wine importer (Germany)	Head of logistics and sustainability
68	WG6	29/03/23	Wine importer (UK)	Director of off-trade sales

P = Prosecco; V= Valpolicella; IG = Italy General; WG = World General