

# The scale, structure and sustainability of the wild fynbos harvesting supply chain in the Cape floral kingdom

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REPORT

# THE SCALE, STRUCTURE AND SUSTAINABILITY OF THE WILD FYNBOS HARVESTING SUPPLY CHAIN IN THE CAPE FLORAL KINGDOM



31 October 2018

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Strategic Partners of the Report:





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## **Author Profiles**

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David is co-lead of the Sustainable Production and Consumption cluster in the Centre for Business in Society at Coventry University, UK. His research focuses upon sustainability (environmental, social and economic) within agri-commodity value chains. He is currently working on a research project investigating sustainability within the Global cut-flower industry. He is also engaged with research which focuses upon the businesses benefits of sustainable practices. David is working with stakeholders in the South African fruit, wine and flower sectors on a programme seeking to focus upon Continuous Improvement approaches within the application of standards and certifications. David has been undertaking research in South Africa for nearly 20 years. He has been involved in several projects investigating the *fynbos* industry (especially the sustainable harvesting aspect) and has also undertaken monitoring and evaluation activities for the SIZA programme.

### **Kathy O'Grady:**

Kathy O' Grady holds a BA degree in Sociology. She has worked within the ethical trade arena in South Africa for the past 10 years. A lead social auditor with experience in SIZA, WIETA and SMETA standards auditing mainly in the fruit industry in South Africa, Zimbabwe and Namibia.

Her work with the Flower Valley Conservation Trust as ethical trade co-ordinator was focussed on the consolidation of the Sustainable Harvesting Programme and the development of an approach to ethical (environment and social) compliance appropriate for wild *fynbos* suppliers into local and overseas markets. This work has been done in conjunction with a range of stakeholders in the industry and role players within SIZA which provides South Africa's ethical framework. She has participated in various ethical trade forums within the flower and fruit industries in South Africa and abroad. She has recently expanded her scope of work into ethical trade initiatives in other regions of Africa including offering training and support to social auditors.

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## Summary against objectives

1. To gain a fuller understanding of the structure and scale of the wild *fynbos* harvesting industry, including its ethical compliance with environmental, social and economic legislation and best practice.

In order to understand the dynamics and structure of the wild *fynbos* harvesting sector it is important to delineate the broader context within which it operates. At the global level this is the cut-flower industry as a whole. Within South Africa it is important to understand how the wild *fynbos* sector integrates with the cultivated sector. Globally, the **cut-flower sector is growing** and becoming more important within **emerging economies**, which creates exciting new opportunities, especially for niche operators such as those in the Cape Flora industry. The global cut-flower industry does face **sustainability challenges** in relation to **carbon and water footprints** and in terms of **social issues**. A range of **sustainability standards** has emerged to support the industry in overcoming these challenges. The sector lags behind other agri-commodities in terms of the penetration and visibility of these standards. The **Floriculture Sustainability Initiative**, emanating from Holland, the centre of the global industry, represents a potential shift in the relevance of sustainability within the sector.

Whilst wild harvested product is often sold as '**straight packs**' (single stems) it usually is presented to the final consumer within bouquets where it complements the distinctive **focal flowers** (such as proteas, pincushions or even roses). An increase in the production of hybridised focal flowers, which offer sustained quality, has enabled the market for Cape Flora to grow. In particular, the **bouquet market** has grown substantially, thanks largely to the development of the UK retail sector in the last decade or so. Currently over 1 million bouquets are produced for export, more than doubling in the last five years. Bouquet production is important as it allows greater **value to be captured locally** and it can be seen as part of the process of **upgrading** within the supply chain. A considerable quantity of wild product is exported within bouquets. Broadcast sowing of greens within the *veld* has become increasingly important in order to increase supply of key products at a good quality and price. Harvesting from broadcast sown stands is more efficient than seeking product in the wild. The structure of the **export market** has changed in the last decade with a **decline** in the role of the **Dutch auctions**, a large **increase** in the **UK retail** sector and a **trend** towards emerging markets in the East, such as **South Korea and China**.

The **domestic market** has also **grown substantially**, especially within the last five years. *Fynbos* is now seen increasingly as a premium product in contrast to its previous second-rate image. Thus, mainstream retailers are offering ranges of *fynbos* products. In the case of Woolworths, the '**localness**' of the products is emphasised through branding phrases such as 'local is lekker' and 'Indigenous'.



Other local markets are also healthy, including farms stalls, farmer's markets and florists. Cape Flora arrangements are attracting high values, for example in hotel displays and for weddings.

The application of **social and environmental sustainability** standards within the Cape Flora industry has improved over the last 15 years, although it is fair to say that these are not embedded across the industry. A small number of Tier 1 suppliers (exporters) are members of **SIZA** and have accreditation for their own operation. Many cultivators have **Global-Gap**, usually as they also supply fruit or wine. A number of operators are members of the **Sustainable Harvesting Programme (SHP)**, which commits them to applying the principles of the Sustainable Harvesting Code of Practice and seeking to achieve compliance with social standards. The necessity to possess **permits** from **CapeNature** is the main form of regulation across the industry. In terms of compliance with standards, **Tier 1 suppliers** (who interact most directly with the market – see 3 below for definitions of Tiers)) have **the most consistent performance** and there are many examples of excellent practice in terms of social and environmental performance. **Tier 2 suppliers** as a whole are on the **journey of improvement**. Pressure from markets, routed through Tier 1 operators is having a beneficial effect in many cases. However, there is scope for improvement across the Tier 2 category. **Tier 3 suppliers** are the **least compliant**. There is considerable work to do to ensure that their operations consistently meet legal social standards. Environmental practices can also be improved too as indicated by the first wave of harvesting field assessments and feedback from individual pickers. Financial constraints weigh heavily on operators within this tier. Some are also not aware of their obligations/rights. However, **some Tier 3 suppliers**, especially those working directly with lucrative local markets, **make good financial** returns. Whilst worker experiences vary greatly, there is no doubt that **some individuals** generate comparatively **good incomes** (for some well in excess of their peers doing general farm work) and that the industry is an **important contributor to livelihoods** in areas where alternative sources of income are scarce.

**2. To provide a baseline on the sustainability of the wild fynbos sector against which impacts on a focussed marketing strategy can be evaluated.**

As outlined in 1 above there are **challenges** in terms of the **sustainability of the wild sector**. There has been considerable pressure for product especially for the UK retail market, usually at a **low value**. Prices for most wild greens have **not increased** much in the last decade or so, certainly not in line with general inflation. There have been marked **increases in expenses** for contractors in terms of fuel, maintenance and wages, for example the increases in the minimum wage, which some suppliers view as a significant threat to the viability of their business. For some contractors the ability to harvest **Silver Brunia**, (whose price has increased by up to 600% in a decade) has been critical in offsetting these costs. However,

this has led to **pressure on stocks** and has also **led to poaching**. There has been a **decline in the range of species** harvested from the wild, although a substantial number are picked. The practice of **broadcast sowing**, whereby seed is added into tracts in the landscape after fire, is becoming more common. From the supplier's perspective this is a rational move as denser stands result which are quicker and thus more efficient to harvest. Higher volumes of key species can also be assured. However, the **regulation** around broadcast sowing is **unclear**. Should broadcast sown product be classified as **cultivated or wild**, for example? How should it be recorded within the **licensing system**? How should broadcast sown product be viewed in relation to '**sustainable harvesting**'? These are major questions which different stakeholders have very varying views upon. The impacts of broadcast sowing need to be better understood in terms of species diversity and general *veld* health. There needs to be **more clarity** as to what constitutes 'sustainably harvested' from broadcast *veld* in order for marketing to take place which focuses explicitly on this quality.

The long term viability of the sector is threatened by ongoing rapid alien vegetation encroachment in harvesting areas. Most stakeholders view this as the most significant challenge they will face in the coming decade. Irregular fire regimes are also seen as problematic in terms of reducing the quality and quantity of *fynbos*. Erratic weather patterns associated with longer term climate change are also challenging.

### **3. To establish the scale of activity in each unit of the supply chain with regard to product, volume, geographical origin and destination**

The research process highlighted major shortcomings in the data capture systems used by the industry. CapeNature's licensing system is not maintained within a database which facilitates easy extraction of analytical data. This makes it difficult to discern even basic patterns in relation to wild harvesting. Equally, the data held by Cape Flora SA is limited in range and scope, only focusing upon volumes of stems and bouquets exported. Final destinations, value of exports and domestic sales are not recorded. No data at all is captured for the dry flower sector.

Supply chains can be conceptualised as having **3 Tiers**. **Tier 1** represents suppliers who largely **export directly**; **Tier 2** contains significant suppliers who **procure and process fynbos** but who use Tier 1 suppliers to access export markets; **Tier 3** suppliers are **more localised** and include small processing operations who may supply directly into local markets or into Tier 2 or even Tier 1 operators. Tier 3 incorporates independent harvesting teams. Circa **80%** of 36 million stems of *fynbos* (wild and cultivated) were exported by the **top six Tier 1 firms** in 2016/17. Nearly **half** of these exports are defined as **greens** within Cape Flora SA data. Most harvesting occurs within the Overberg on the Agulhas Plain. The Southern Cape

(Riversdale) is the next most heavily harvested area. Harvesting also takes place in the Boland and West Coast regions but to a much lesser extent. Small amounts of product are sourced from other areas. **Cultivated product** is sourced from across the Western Cape and other provinces. Many growers specialise in producing specific hybrids which gives them power in the market. Most of the **exporters** are located at **Cape Town International Airport**, some also have offices in Johannesburg. **Tier 2** suppliers are located mainly on the **Agulhas Plain**. **Tier 3** are also **mainly located on the Agulhas Plain** although significant numbers are located in other districts, with some significant operations in the Riversdale area. The **dry sector** has a significant presence on the Agulhas Plain although product is derived from right across the Western Cape including Ceres and Riversdale. Usage of wild *fynbos* by the dry sector is declining but still represents a sizeable share of all harvested material.

#### 4. To establish the nature and profile of employment provided by each node of the supply chain

The wild harvesting sector **provides significant employment opportunities** for around 2000 people. Some of these are **full-time harvesters**, some also undertake pack-shed duties whilst others are occasional harvesters who pick when there is opportunity. Therefore, there is a **range of employment** arrangements for harvesters. The majority of harvesters are paid a **piece rate**, which means they need to pick a minimum number of stems per day in order to earn the minimum wage. Some managers will top up their wages if required to meet the minimum wage level. This is not standard practice. Some harvesters do earn a **good living**, well in excess of the minimum wage and indeed, typical general farm work wages. Some people who work for Tier 3 suppliers have more precarious work and may often earn below the minimum wage, especially when picking in locations where (low value) flowers are scarce.

In addition, the **major packsheds** (Tier 1 and 2) provide **direct employment for around 1400** people, the majority of whom have full-time positions. Some of these people also undertake harvesting work. The dry sector represents around 33% of these jobs. Employment within packsheds varies in terms of skill levels and therefore remuneration. **Basic work** includes tasks such as cleaning the flower stems (removing excess foliage), whereas **more skilled work** includes bouquet making, quality control and team management. Tier 1 suppliers offer good opportunities for skill development and career progression. Therefore, there is **positive evidence of transformation** occurring in terms of coloured and black people moving into better paid positions of responsibility. Opportunities for **entrepreneurs** are also being created through sub-contracted harvesting teams. There is strong evidence of positive mentorship from pack-shed management.

There is a trend of **increasing formalisation** within the industry driven by the need for high quality standards. This leads to more permanent work and stratification

within the workforce, whereby better jobs are now being created. There is less casualization. This is the case in terms of harvesting teams where the informal 'bakkie brigade' is becoming less of a feature. Traditionally the wild harvesting sector has been seen as the domain of Coloured people. This remains true today, although in some areas isiXhosa speakers are now increasingly important within the workforce as well as some nationals from other African nations. Young Coloured people are less interested in becoming involved in harvesting, preferring to seek other employment options, which requires migration to urban areas.

# The Scale, Structure and Sustainability of the wild *Fynbos* harvesting supply chain in the Cape Floral Kingdom

## 1.1 Introduction

South Africa's *fynbos* (indigenous cut-flower) industry, predominantly based within the Cape Floristic Region, has long and proud cultural and economic traditions (Middelmann 2012). The unique vegetation emanating from the region became a distinctive component of colonial-era trade which laid the foundations for the modern industry. Today's *fynbos* (or 'Cape Flora' to use the generic label favoured by retail buyers) industry has changed significantly in the last decade or so. Global commodity supply chains have embraced modern technologies enabling rapid exchanges of information and efficient transactions across the world. The *fynbos* industry, although it retains a cottage industry feel in many ways, has not been immune to these wider shifts. More than a million bouquets are shipped overseas each year meeting the demanding quality and logistics requirements of European retailers (Goosen 2018). Markets in China, Russia and South Korea are being developed apace. Industry leaders have shown themselves to be more than capable players on the international stage. In turn this has benefited local markets which seem to increasingly value their indigenous natural heritage.

This research project grew out of an imperative to better understand the industry both in terms of its economic *modus operandi* but also its social and environmental impacts. Indeed, the industry's daily operations have significant impacts upon local economies, societies and natural environments (Bek et al. 2012; Bek et al. 2016; Conradie & Knoesen 2009). However, as a result of the industry's historical development, which has been characterised by fragmentation, individualism and secrecy, there is a lack of verifiable information about the scale of the industry or the economic structures through which it operates (Blokker et al. 2015). Furthermore, it is an industry which interacts closely with the natural environment, indeed the wild harvesting sector depends upon the natural resource for its very survival (Privett et al. 2002). In order to take the industry forward, and ensure its future, there needs to be better understanding of the relationships between the natural environment, harvesting activity and the market processes driving that activity. This 3-year research project (2015-18) was initiated out of a recognition that the *fynbos* industry needed to be better understood in order that institutional actors, such as Cape Flora SA, CapeNature and the Flower Valley Conservation Trust, can devise and deliver more targeted systems for marketing, promoting, regulating and supporting the industry with a view to ensuring its long-term sustainability as an economic player of note in the Western Cape.

The project started with two key objectives and four subsidiary objectives:

Overarching objectives:

1. To identify the Structure and Scale of the wild *Fynbos* harvesting supply chain
2. To investigate the sustainability of the wild *Fynbos* harvesting supply chain

#### Subsidiary Objectives:

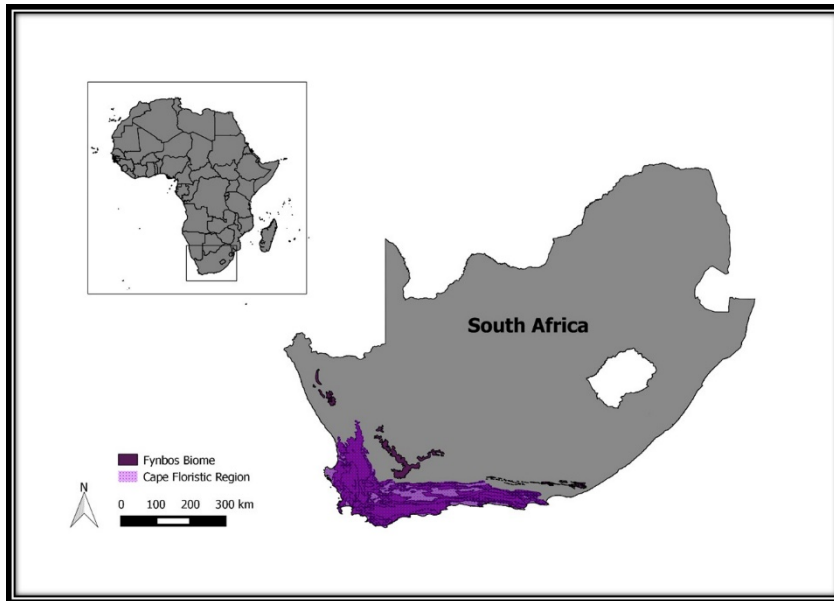
1. To gain a fuller understanding of the structure and scale of the wild *fynbos* harvesting industry, including its ethical compliance with environmental, social and economic legislation and best practice;
2. To provide a baseline on the sustainability of the wild *fynbos* sector against which impacts on a focussed marketing strategy can be evaluated;
3. To establish the scale of activity in each unit of the supply chain with regard to product, volume, geographical origin and destination;
4. To establish the nature and profile of employment provided by each node of the supply chain.

A summary of the findings against these objectives is provided on pages 1-4 of this report.

The full report is structured as follows. Section 2 outlines the methodology which enabled data to be collected. A wide range of stakeholders were interviewed, detailed documentary analysis occurred along with numerous site visits to locations ranging from remote mountainsides to the Dutch auctions. Section 3 sets the *fynbos* industry into the broader context of the global cut-flower industry in order that broader processes and drivers influencing the industry can be understood. This includes analysis of predicted market trends and the growing pressure for sustainable practices within the industry as a whole. The report then looks into the archives to trace the growth of the *fynbos* industry. This is followed by detailed examination of current data which outlines export patterns. Analysis is also provided of different facets of the domestic market. We then look in detail at the trends underpinning the recent growth of the industry, including the rapid development of the bouquet sector. Our analysis examines the ways that supply chains have evolved to supply different markets. We propose a model which categorises industry suppliers into 3 distinct Tiers. Section 5 evaluates the distribution of value within supply chains demonstrating the pressures that are placed upon those at the start of the supply chain. We illustrate how economic, social and environmental upgrading has occurred within some aspects of the industry necessitated by the quality standards required by key markets. Section 6 considers the wild harvesting sector in more detail, looking at the available data on the geographic spread of harvesting and evaluates its economic, social and environmental impacts. The challenges, ranging from fire regimes to poaching, of sustaining the industry are also outlined. Section 8 provides insights into the perceptions held by interviewees into the various organisations involved in the industry's governance. The report concludes by presenting a range of recommendations for sustaining the industry into the future.

#### **2.1: Methodology**

The research methodology was based around several different elements. Documentary research involved identifying sources of information on the cut-flower industry at a global scale as well as the development of the *fynbos* industry. These sources included academic texts, online media and industry reports. Interviews (see



**Figure 1: The Cape Floristic Region of South Africa**

below for more detail on sampling) and focus groups were an important tool for gaining up to date information and insights into the industry. It became clear that the wild sector could not be studied in isolation from the cultivated sector as the two are interdependent within the broader industry, thus we ensured that cultivators were included in our sample.

Interviews were conducted with a cross section of stakeholders (see figure 2 below) within the Cape Flora industry during the period February 2016 to May 2018 within the main regions of the Western Cape where businesses producing for the Cape Flora industry are located, i.e the Agulhas Plain, the Riversdale region, the West Coast and the Boland regions. Interviews were also conducted with export businesses located around Cape Town airport, Multiflora in Johannesburg, with institutional stakeholders across the Western Cape and with importers in the UK. In total 80 formal interviews were conducted during the project. Some respondents were interviewed on more than one occasion and many respondents represented more than one stakeholder group.

**Figure 2: Number and categories of Stakeholders interviewed**

Stakeholder	Number of Respondents	Repeat Interviews
Exporters	19	5
Pack-sheds*	7	1
Harvesters	19	
Institutional	25	5
Cultivators	8	1
Retailers	3	
Landowners**	11	3
UK importers	2	
<b>Total***</b>	<b>91</b>	

\* In this category 'pack-sheds' refers to businesses which do not themselves directly export.

\*\* 'Landowners' refers to people owning land which is wild harvested.

\*\*\* The total includes multiple interviews as some stakeholders play different roles within the supply network.



By and large we did not have major problems gaining opportunities to interview people, the vast majority willingly shared their knowledge and enthusiasm for the industry. Many were very forthcoming with information.<sup>1</sup> For example, most Tier 1 and 2 suppliers were more than happy to conduct tours of their pack sheds and most provided detailed accounts of their operations. A small number were more reticent or refused to co-operate. Access to workers was more problematic in many cases. Some business owners were very helpful and open but many were not keen for their workers or suppliers to be interviewed. Thus, it became necessary to access workers via the community rather than via their employers in order to gain insights into working conditions. The community route enabled us to conduct focus groups with people with long-standing knowledge of the industry and experience of working for multiple businesses. Some smaller (Tier 3) harvesters were concerned about being involved in the research.

In addition, a range of other forms of research and observations were undertaken during the study. These are detailed below.

- Focus group discussions were held with experienced workers within the wild harvesting industry on the Agulhas Plain as well as with workers at two pack-sheds.
- The research team explored different sub-strands of the supply chain. For example, less formal/domestic outlets, such as street and country markets and makers of bespoke bouquets for weddings etc. Research was undertaken into informal and semi-formal sales of Cape Flora in the Overstrand, the Stellenbosch region and at Trafalgar Place Flower Market, Cape Town in order to understand sourcing practices, consumer profiles and regulatory practices.
- A methodology for field based research to examine the economic viability of sustainable wild harvesting from the perspective of the harvester was piloted.
- Statistical analysis of export data from DTI sources has been completed.
- Cape Flora SA's statistical data on export patterns was analysed.
- A baseline survey of ethical/legal compliance amongst harvesting teams/pack sheds was undertaken.
- Results from the SHP's Environmental Best Practice Standards (EBPS) system and social baseline study were analysed in order to assess harvesters' compliance with social and environmental criteria.
- Interview and site visit at Multiflora, Johannesburg.
- Kathy O' Grady attended the International Protea Association (IPA) Conference held in Stellenbosch in September 2017.
- Dr David Bek and Dr. Jill Timms attended international marketing events at Royal Flora Holland, Aalsmeer and IFTF, Vijfhuizen, in November 2016. They observed the extent to which *fynbos* is being promoted by different companies

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<sup>1</sup> The research methodology was subject to scrutiny by the Coventry University ethics system. This included ensuring that respondents were aware of the purpose of the research and that their anonymity would be protected unless they stated otherwise. Hence all quotes in this report are unattributed.

on the world stage and undertook informal interviews with a range of exhibitors. David also visited the auction at Aalsmeer.

- Kathy O’Grady visited the UK as part of visit organised between Flower Valley Conservation Trust and Newcastle University. The visit included participation in an event on 1<sup>st</sup> December 2016 at the Royal Geographical Society in London to launch the *Fynbos* Field Guides.<sup>2</sup> During the visit the two main UK *fynbos* importers were interviewed by Kathy and David.
- Dr David Bek and Dr. Jill Timms organised two workshops on the future of sustainability standards and certifications in the global cut-flower industry. The first workshop was held at Coventry University, UK in July 2017 and the second at MM-UK (the largest importers of Cape Flora bouquets) in Alconbury, UK in May 2018. David also organised a visit for the Coventry University Sustainable Production and Consumption Research Cluster to MM-UK in November 2017. This visit yielded insights into supply chain strategies from the perspective of UK retailers.
- A comparative analysis of *fynbos* recovery post fire in neighbouring heavily harvested and lightly harvested areas was undertaken in the Elim region.

Other projects based at the University of Coventry, UK have contributed to this research. These include:

‘Ethical Flowers: Promoting the Value of Certification Throughout the Supply Chain to Improve Working Conditions’, research project funded by Coventry University’s pump prime project scheme.

‘Promoting Ethical Flowers for Improving Working Conditions in Supply Chains’, research project funded by the British Academy and the Leverhulme Trust.

‘Cut-flowers, Sustainability and Certification’, workshop held at Coventry University July 2017 funded by Impakt-SS scheme.

‘Standards, Certifications and Sustainability in the Global Cut-flower industry’, workshop held at MM-UK May 2018 co-funded by MM-UK and Coventry University.

### **3.1 Snapshot of the global industry: South Africa’s cut-flower industry in context**

Historically the Netherlands has been the dominant player in the global flower industry and it retains that status today although patterns of production and trade have shifted markedly in the last 20-30 years (Stewart 2007; Gerhardt 2014). Current global floriculture trade exhibits a clear Global South to Global North pattern (Rabobank 2015; 2016). Significant levels of production occur in East Africa and South America which is then exported to regional markets in Europe and North America. Nations such as Kenya, Ethiopia and Colombia have become major flower producers for a number of reasons (Melese 2018; Goger et al. 2014; Knapp 2017) Geographically they offer

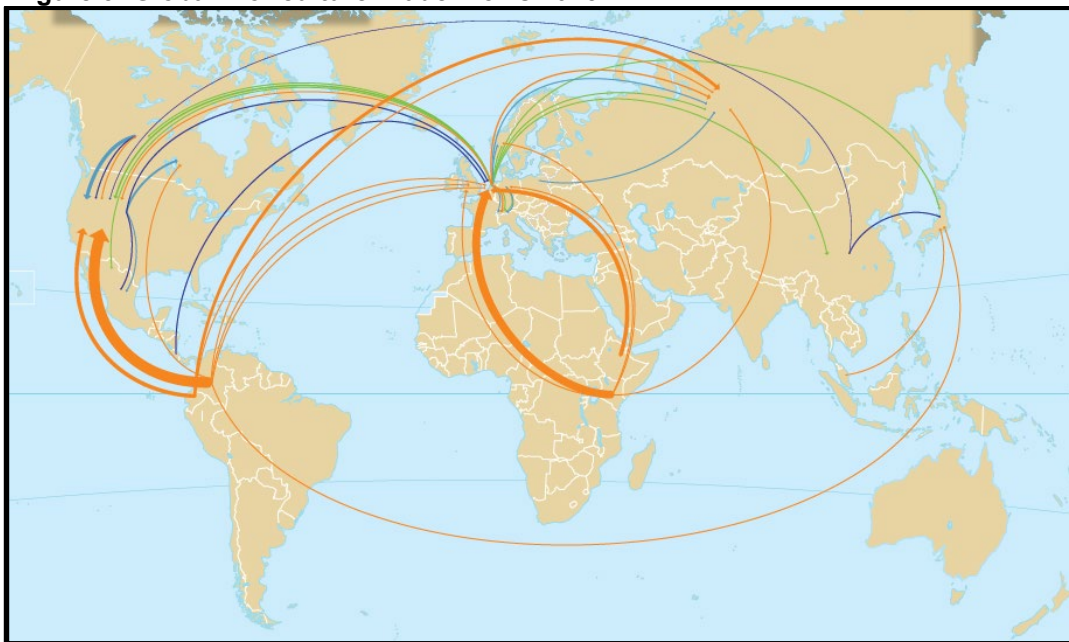
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<sup>2</sup> <http://www.CapeFlorasa.co.za/wp-content/uploads/2013/07/CFSA-Newsletter-Dec-2016-final.pdf>

excellent conditions for flower production and they are well located in terms of access to the world's major markets. Furthermore, the growth of these industries has been heavily supported by governments keen to promote export-driven development programmes. Major investors, especially from Holland, have been involved in setting up flower farms and the necessary logistics. The availability of cheap labour and other low production costs have been key factors in attracting investment. The Netherlands, with its famous auction houses, remains the 'epicentre' for the European industry and retains significant global influence trading into other countries across the globe. The global industry is currently valued at \$55 billion (Rabobank 2016).

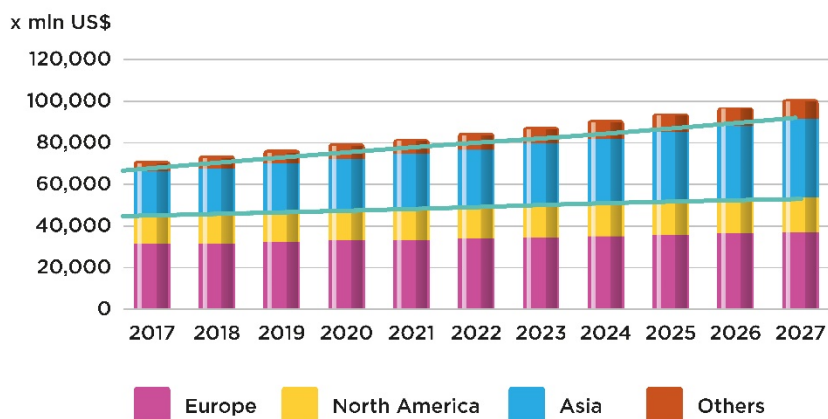
Trade into nations such as China, South Korea and Russia is currently comparatively low. However, these are rapidly developing markets which will exert increasing influence in coming decades. Figure 3 below indicates that whilst growth of around 20% is predicted in traditional European and North American markets, growth in the Rising Powers in Asia is likely to be nearer 80%. The overall market (including potted plants) is predicted to grow by around 50% suggesting that there are tremendous opportunities within the sector. South Africa is a minor player in terms of the global floriculture industry but does enjoy a niche position. Whilst trade within African markets will remain low by international standards there is likely to be significant growth and opportunities in the coming decades, as indicated by the rapid growth in trade (7% increase in each of the last three years) at the Johannesburg Multiflora market.

**Figure 3: Global Floriculture Trade Flows 2015**



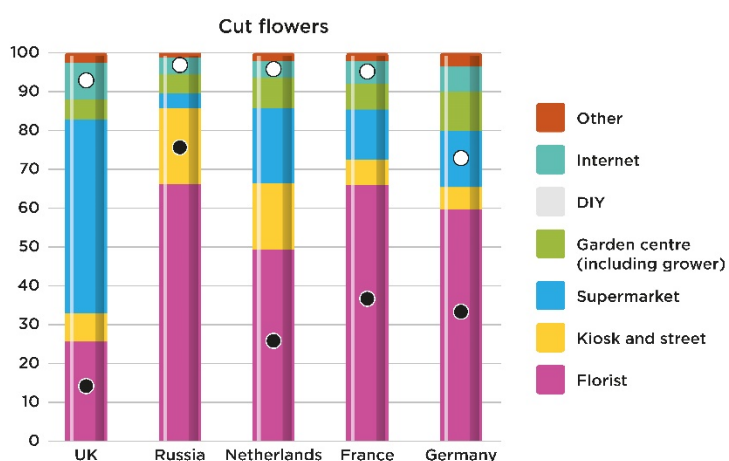
Source: [https://research.rabobank.com/far/en/sectors/regional-food-agri/world\\_floriculture\\_map\\_2016.html](https://research.rabobank.com/far/en/sectors/regional-food-agri/world_floriculture_map_2016.html)

**Figure 4: Expected development of consumption value of flowers and potted plants 2017-2027**



Source: UN-Comtrade, 2016 and Royal FloraHolland 2016 in Rabobank 2016.

**Figure 5: Retail share of domestic market 2016**



Internet sales are a small but fast growing segment of the European consumer market. The UK market is dominated by retailers and the role of traditional florists is diminishing

Source: Rabobank 2016

### 3.2 Sustainability Challenges – the Flower Industry’s Footprints

In common with other commodities produced within global horticultural value chains, cut-flowers are associated with a range of sustainability challenges. These challenges include:

**Water footprint:** flower production is highly intensive in terms of water usage. A rose stem for example can use between 7-13 litres of water during production. There has been much negative commentary on the impacts of flower production upon Lake Naivasha’s water levels and quality in Kenya (Lanari et al. 2016).

**Carbon footprint:** production in hothouses uses a great deal of energy. Growing a rose in Holland can generate five times as much carbon as growing a rose in Kenya. However, large amounts of carbon are required to fly Kenyan roses to markets in Europe (Swin 2017; Timms 2017; Fortnam 2015).

**Social, labour and political issues:** appropriation of land and water for flower production has been linked with political unrest in East Africa (Lebhour 2016). Whilst

abuse of labour rights has led to a number of campaigns by advocacy NGOs. Gender inequalities have been a particular concern as have issues related to exposure to agrochemicals (Barrientos 2014; Aduagna Kassa 2017; Buckingham 2016; Kenyan Human Rights Council 2012).

Campaigners question whether these sustainability impacts are acceptable given that flowers are a luxury item rather than a necessity such as fruit and vegetables.

#### Sustainability Standards and Certifications in the Cut-flower industry

Given the sustainability challenges outlined above it is perhaps no surprise that there has been a move to introduce standards and certifications which seek to assure minimum levels of social and environmental compliance within cut-flower supply chains (Timms 2012; Mwangi 2018). Up to 20 schemes can be operating at the same time, with Riisgaard 2009; (2011) detailing at least 13 that included a social element. Of flowers imported into the EU, between 50-75% adhere to one or more of these standards (Riisgaard, 2011: 442). Some schemes are complementary and some in competition (examples are shown below in figures 6 and 7).

Industry initiated certification schemes originating with Northern growers and retailers include GLOBALGAP (Good Agricultural Practice, developed mainly through supermarkets), MPS (developed with the growers associated with the Dutch auction houses) and Veriflora (mainly involving American growers and retailers). Those developed by Southern flower grower associations include FlorVerde of Asocoflores (Colombia), FlorEquador of Expoflores (Ecuador), and the Kenya Flower Council (KFC) Code of Practice. This last one is a good example of how the codes can cross-over as KFC is a certification body for GLOBALGAP, and any member achieving a Gold or Silver KFC certificate achieves automatic certification with the schemes it is benchmarked with or has a mutual recognition agreement with.<sup>3</sup>

The second category is schemes developed in conjunction with NGOs and trade unions, often referred to as multi-stakeholder initiatives. These also developed in other industries where practices have been criticised (Fransen and Burgoon 2014; O'Rourke, 2006). Here initiatives involve groups pressuring the flower industry to act in a more responsible way by encouraging certain certifications. These include the related Fair Flowers Fair Plants (FFP) and the Flower Label Programme (FLP), and also Fairtrade schemes organised via the Fairtrade Labelling Organisation (FLO).

In theoretical terms the introduction of such standards can be understood as a furthering of the dominance of **lead firms** within value chains. As Bolwig et al. (2010) state this influence is extended by the imposition of standards which determine access to specific segments of the market and the terms of participation in global chains. In other words, producers or exporters who have not invested in these standards face exclusion from these markets. Furthermore, the requirement for standards can lead to disquiet amongst producers who can feel disempowered by the process of having such requirements forced upon them. Overall the existence of attempts to ensure that legal and ethical obligations are met within supply chains is largely supported by most stakeholders. But as is well documented in the literature, the existence of such

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<sup>3</sup> These are FFP and FLP, MPS-SQ, MPS-Social, MPS-ABC, Tesco's Nature, and Rainforest Alliance.

standards is complex and contested: whose ethics are being applied? What voice is given to local stakeholders? Who acts as ‘the police’ and in whose interests?

**Figure 6: Examples of Standards and Certifications in the cut-flower industry**



Interestingly there has been low consumer awareness of the existence of these certifications and standards, whose branding (with the notable exception of Fairtrade) has tended to be missing from the packaging/marketing of flowers. This lack of awareness extends further back down the supply chain to florists and even wholesalers. However, awareness of sustainability issues within cut-flower supply chains is growing and florists in the UK are reporting increasing interest from customers in ‘sustainable’ flowers. A change appears to be moving into the industry with the auction clocks in Holland now routinely providing information about certifications for relevant lots. Some wholesalers are also starting to provide such information to their clients. A significant step has been the initiation of the Floriculture Sustainability Initiative’s (FSI) in Holland (see figure 7 below), supported by the IDH (Sustainable Trade Initiative) (FSI n.d.). The Dutch Flower Group have set a target of sourcing 90% of internationally traded flowers from FSI members by 2020. According to the CEO of the Dutch Flower Group, Marco van Zijverden, ‘The question is no longer if, but when, the standards and requirements regarding sustainability are going to be regulated’.



Figure 7: The Floriculture Sustainability Initiative's basket of Standards and Certifications



## 4.2 The South African Cut-flower Industry

### Market Size and Trends

The lack of availability of accurate and comparable statistics has been a problem that has long affected the *fynbos* industry. Former Chair of SAPPEX, Maryke Middelmann (2012 p.206) bemoaned the fact that the collection and analysis of data fell away in the mid-2000s after two decades of increasing consistency in the collection of such information due to SAPPEX's 'slow death'. Whilst the literature, including flower industry body reports, widely quotes industry impacts, trends and statistics these are difficult to compare due to variations in the data collection methods used and the definitions of data categories which have shifted over time. For example, some data refers solely to exports, some to exports and domestic; some is based on small samples of businesses and extrapolated; some is based on weight; some is based in cartons; some on number of stems; some includes both fresh and dried sectors; some data is based on value which can make comparisons difficult owing to exchange rate swings; differentiation between wild and cultivated product is not always clear, this is further complicated by the ambiguous status of broadcast sown product. It is also not clear how the value is calculated in different data sources in terms of which points in the value chain are being included. The inclusion of non-*fynbos* species within the official Cape Flora SA statistics (which are now the central source of industry data) also muddies the water – for example, banksia and eucalyptus are included in the 'greens' data. Furthermore, there has been no collation of data from the dry flower industry since 2005/6.

### Chronology of the Industry

The data provided below has been drawn from various primary and secondary sources. It should be recognised that much of this data is based on samples, partial data collection and estimations, therefore it should be treated with care (Treunicht 2010 and Middelmann 2012). However, useful trends are observable none the less. These trends include: an overall growth in the size of the industry especially in terms



of volume and value of exports; increase in the relative importance of the cultivated sector; fluctuations in numbers of exporters, decline in relative importance of the dry industry.

- 1950 value of all flower sales, including bulbs was circa R1 million for export and R200,000 for the local market (Middelmann 2012 p.50)
- 1971 these figures had risen to R3.5 million for export and R800,000 for the local market (Middelmann 2012 p. 50)
- 1974 38221 cartons of dried flowers were exported (Middleman p. 60/1)
- 1976 there were 16 exporters who sent 21825 cartons overseas the vast majority having originated in the Western Cape (Middelmann 2012 p.206)
- 1981 (or 1992 source is unclear) industry had 75 members and 1700 tons of fresh produce export.
- Late 1980s local and foreign sales R30 million per annum (Middlemann et al. 1989)
- Late 1980s 65% of *fynbos* production was from the wild (Cowling 1989 in Treurnicht 2010).
- 1992 a voluntary levy of 10c/kg exported was imposed to support research into *fynbos* agriculture – via ARC and Stellenbosch University.
- 1995, 2 861 212 kg of fresh flowers were exported, a 15.5% increase on the previous year.
- 1997 The monetary value of the industry was approximately R81.7 million, of which the dried flower component is approximately R37.22 million and directly employs around 4000 people (Coetzee and Middelmann 1997).
- 1997 gross sales R149.3 million per annum of which the wild component generated R86 million (Heydenrych 1999; Heywood 2003).
- 1997 20,000 hectares under *veld* harvesting (Taschner 1997 in Van Rooyen et al. 2001 p.1).
- 1998 3,600 tons of *fynbos* exported (Middelmann 2012).
- 2000 exports alone generated gross income of R173.1 million (SAPPEX)
- 1998-2002 SAPPEX contributed R1 million in levies (Middleman 2012).
- 2002 4690 tons exported (Middelmann 2012).
- 2003 exports generated R209.7 million (SAPPEX 2006).
- 2003 300 members and export of 4700 tonnes (Middelmann 2012).
- 2003 25,000 people dependent on the *fynbos* industry (growers, exporters and workers) (SAPPEX to Portfolio committee on Agriculture and Land Affairs).
- 2005 total value of fresh and dried industry turnover was R212 million.
- 2008 total value of the industry was R300 million, with 90% of value being derived from the cultivated sector which comprised 150 producers.
- 2015 industry worth R380 million; 90% of proteas grown are exported, mostly to Europe including the UK (Stander 2015).
- 2015 49,000 ha of *veld* harvested *fynbos* (490 workers); 1100 ha of cultivated (946 workers); circa 1436 jobs across all regions, plus an equal number of seasonal workers, 75% of total flower exports from SA are *fynbos* (Stander 2015).

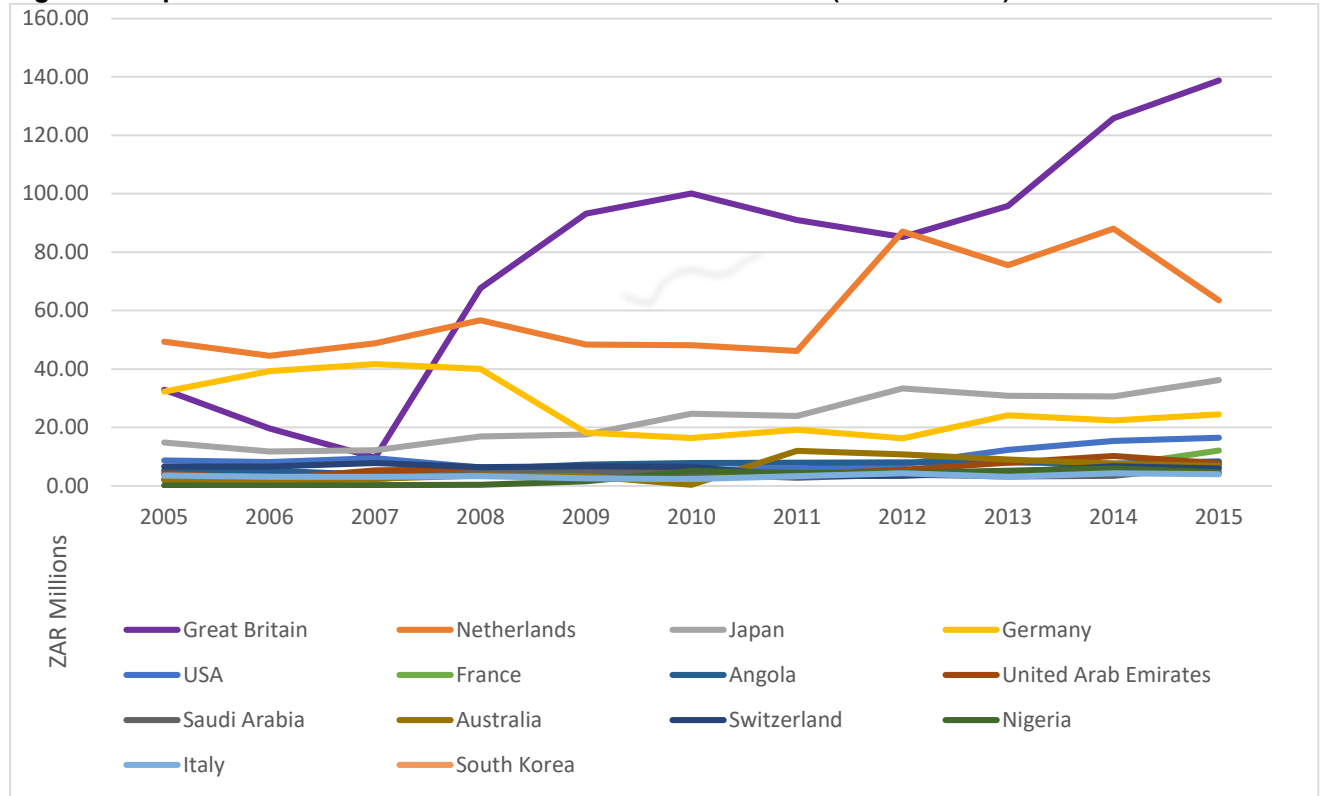
- 2015 Overberg – 33 protea cultivators; Southern Cape 12 (around 200 hectares); Boland 25 producers (Stander 2015)
- 2018 200,000 hectares under *vel'd* harvesting (Caboz in Cape Insider).

### 4.3 Market Trends 2005-2018

All Flower Exports from South Africa: 2005-2015

Figures 8 and 9 shows export data collated by the South African DTI under the category of 'Cut flowers and flower buds'. A weakness of this data is that it includes all flora, not just *fynbos*. However, Cape Flora represents the majority (around 75% according to Stander 2015) of flower exports, especially into more distant markets. The principal trends include: (i) overall increase in value of exports (ZAR165 million in 2005 to ZAR390 million in 2015); (ii) dramatic growth in the UK market which alone represented ZAR140 million in 2015. This growth has been driven by the explosion in demand for Cape Flora bouquets via retailers. UK imports had dropped to ZAR10 million in 2007 but following Marks and Spencer's interest in sustainably harvested bouquets there followed a dramatic growth until 2010, a stabilisation until 2013 followed by more rapid growth. It should be noted that ZAR values are influenced by exchange rate fluctuations which have been substantial at certain points during this time period therefore the shifts in value may not be proportionate to the volume of product being shifted. (iii) increase in Eastern markets such as Japan and South Korea. (iv) Largely steady performance of the Netherlands as an importer with a slight increase between 2012-14. It is likely that a greater proportion of sales into the Netherlands are being made directly rather than via the auction floors. (vi) decrease in value and relative importance of the German market in the last decades.

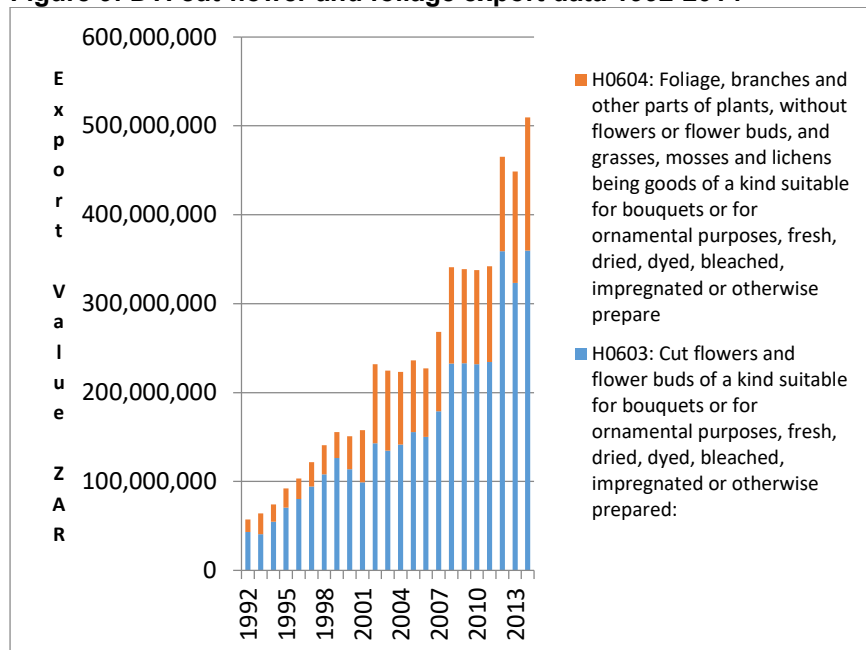
**Figure 8: Export Destinations for South African Flora: 2005-2015 (ZAR millions)**



Source: [http://atlas.media.mit.edu/en/visualize/tree\\_map/hs92/export/zaf/show/0603/](http://atlas.media.mit.edu/en/visualize/tree_map/hs92/export/zaf/show/0603/)

2015/

**Figure 9: DTI cut-flower and foliage export data 1992-2014**



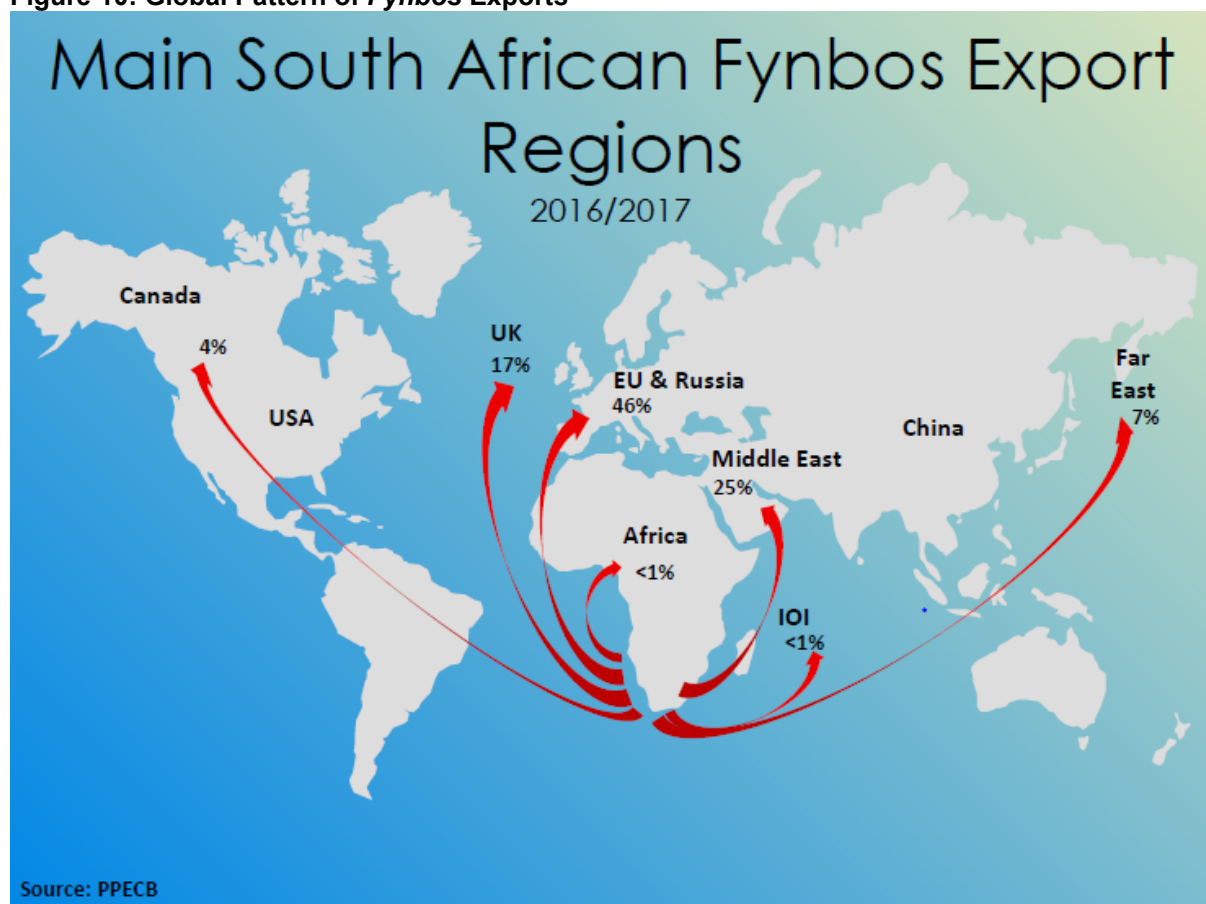
Source: <http://tradedstats.thedti.gov.za>

### Patterns and Trends in *Fynbos* Exports

Figure 10 is drawn from PPECB data which is processed by Cape Flora SA for their regular reports to the industry. The data shown here shows slightly different patterns to the DTI data due to the following reasons, (i) PPECB data is based upon volumes (number of stems) rather than value, (ii) the data relates to 2016/17, which is significant as the UK market was affected by the Brexit referendum in June 2016 which led to a major devaluation of Sterling, (iii) PPECB data focuses purely upon *fynbos* exporters' information.

The PPECB data demonstrates the continuing dominance of Europe as a market. The Middle East and to an extent the Far East are also increasingly significant. It should be noted that the data does not illustrate the final destination of product, thus shipments into Dubai, for example, are most likely to be shipped on elsewhere.

Figure 10: Global Pattern of *Fynbos* Exports

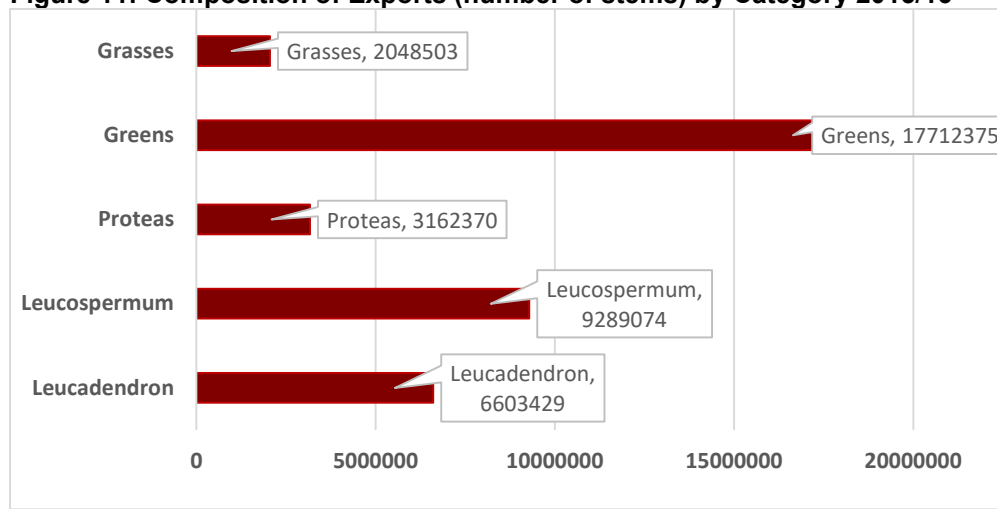


### Composition of Exports by Flower Type

Figures 11 and 12 below illustrate the relative proportions of each category of flower that was exported in 2015/16 and 2017/18. Greens are by far the largest single category, representing 46% of all stems exported by volume. By value their share will be substantially less. Not all of these greens are wild *fynbos*, as the category includes some non-indigenous species and a considerable proportion will be from stands of broadcast sown product. Leucospermums and Leucadendrons are the next most significant exports by volume. Proteas are only 8%, although they are likely to

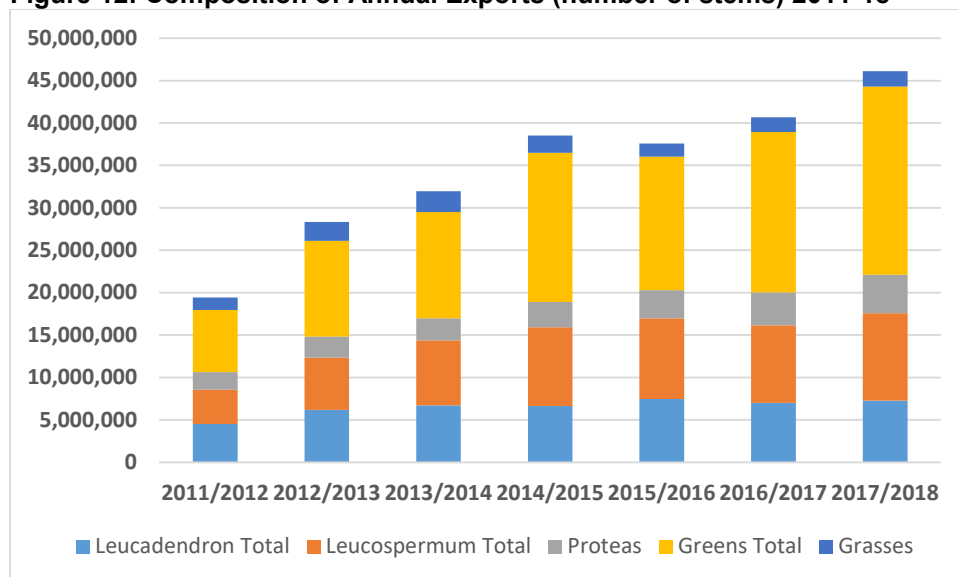
represent a much larger proportion by value. In terms of bouquet types, Protea bouquets consistently represent at least half of all bouquets which are exported. In the last five years the share of mixed green and mixed bouquets has grown considerably. This indicates that a proportion of bouquets are having extra focal flowers added once they reach the destination market. It should be noted that the overall number of bouquets being exported has grown considerably, thus all categories of bouquet have increased in terms of actual numbers, for example Protea bouquets exports increased by 260% between 2012 and 2018 whilst mixed bouquets increased by 670%

**Figure 11: Composition of Exports (number of stems) by Category 2015/16<sup>4</sup>**



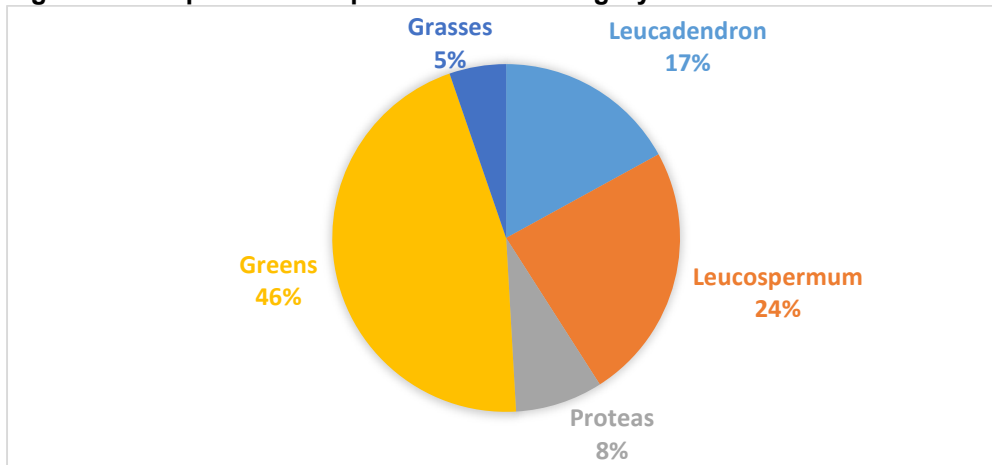
Source: Goosens 2018

**Figure 12: Composition of Annual Exports (number of stems) 2011-18**

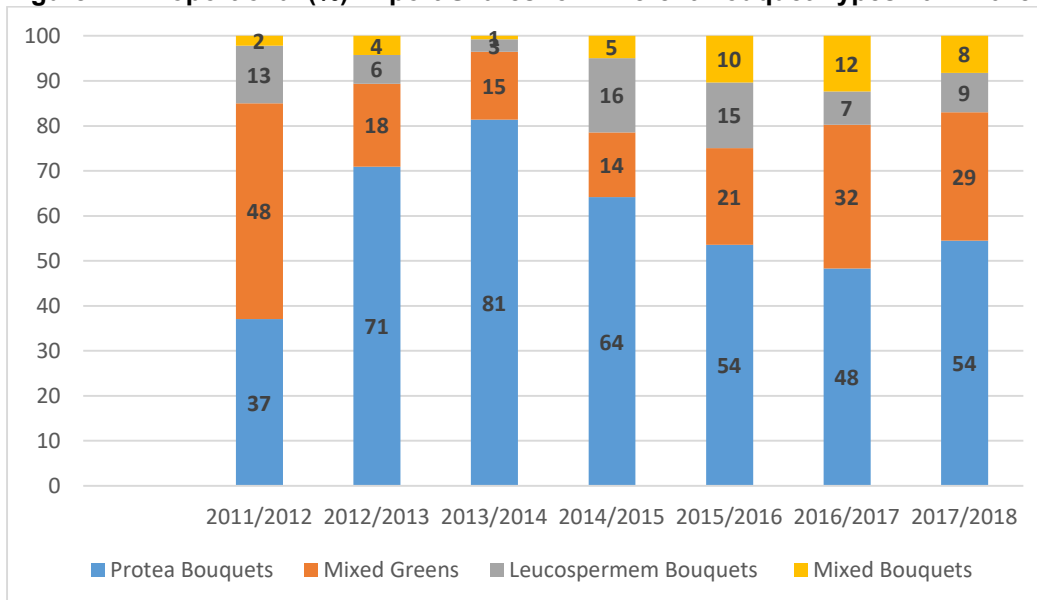


<sup>4</sup> All data in the ensuing figures is sourced from Cape Flora reports which draw upon information provided by the PPECB.

**Figure 13: Proportion of Exports for each Category 2015/16**



**Figure 14: Proportional (%) Export Shares for Different Bouquet Types 2011-2018**

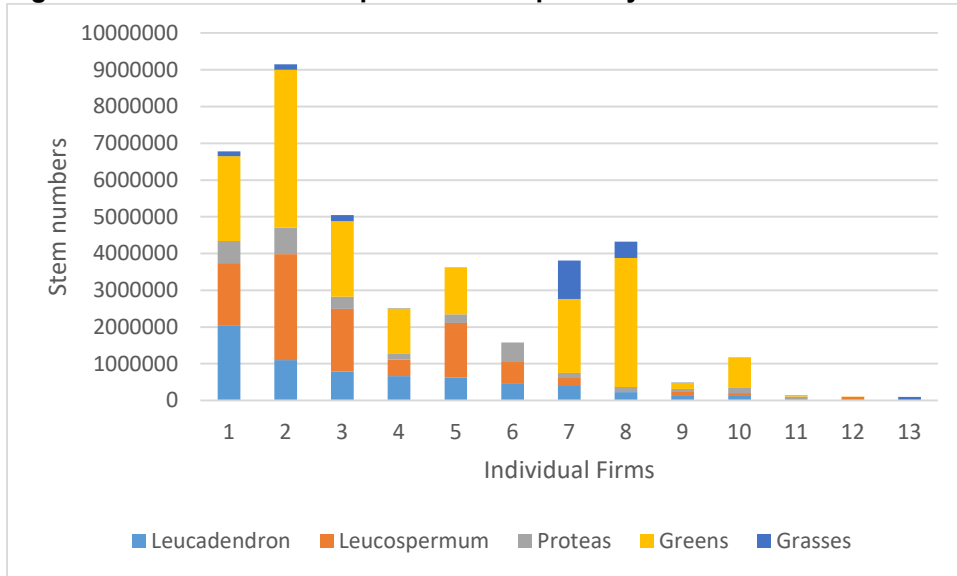


#### Firm Level Analysis of *Fynbos* Exports

There are currently thirteen exporters registered with the PPECB. Six of these firms can be considered major exporters as they each send over 3.5 million stems overseas. One exported more than 9 million stems, over 2 million more than its nearest rival. Four of the firms are small scale exporters with sales of less than 0.5 million stems. Most firms sell a cross section of products, although some of the medium and smaller businesses rely on two or three product types for the vast majority of their trade.

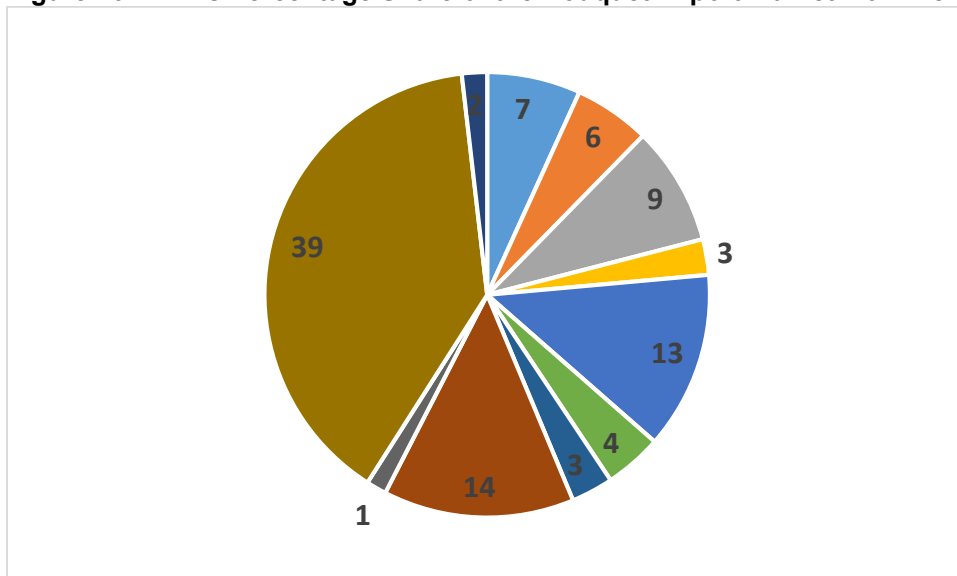
The bouquet market has increased dramatically in recent years. Eleven firms export at least 20,000 bouquets, whilst four export more than 100,000. One firm dominates holding nearly a 40% share of all bouquet exports.

**Figure 15: Volume and Composition of Exports by Firm 2015/16**



*n.b. Firms have been anonymised*

**Figure 16: Firm's Percentage Share of the Bouquet Export Market 2017/18**





## The Domestic Market

There are no data sources for the domestic sector as a whole. Data is available for the Multiflora market (see Box above) which is the only significant flower market on the African continent. Multiflora is not a major outlet for Cape Flora but is still an important option for a handful of producers. Bouquets are sold as well as straights. Product from Multiflora is sold on into other African countries as well as to domestic wholesalers and even street vendor collectives. The domestic market more broadly has grown substantially in recent years as evidenced by increasing shelf space being offered in retailers such as Woolworths, PicknPay and Checkers (Coetzee and Hoffman 2018). Local markets via florists also appear to have grown as *fynbos* has become seen as a more fashionable product.

## Local markets

Local markets for *fynbos* products are thriving. A field survey of the Overstrand area (Stanford-Gansbaai-Elim) revealed more than a dozen operators selling into differing market channels. Outlets include: farm stalls, formal florist shops, grocery retailers (such as Spar), local markets and home-based businesses producing bespoke product for weddings, funerals and hotels. Much of the activity is informal or semi-formal. Several of the businesses surveyed did not have all the necessary permits and/or procured their supply from unpermitted sources. Necessary legal paperwork such as detailed invoices is also lacking. Most of the businesses operate within 3<sup>rd</sup> tier supply chains with limited interaction with 1<sup>st</sup> and 2<sup>nd</sup> tier actors (see above for full definitions of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Tier supplier categories). Although lower (non-export) grade focal flowers are often bought directly or indirectly from a 2<sup>nd</sup> tier operator. For the majority of the businesses surveyed cut-flower sales are just one component of more diversified incomes. However, flowers do provide an important part of their incomes, especially during peak times such as Christmas and Valentine's Day.

The majority of sales are of bouquets, although some straights are sold usually focal flowers such as proteas. The production of bouquets increases the opportunity for adding value, especially for high value customers, such as weddings and hotels. One maker of wedding arrangements revealed that they could charge prices 5 to 6 times the cost of the flowers. This margin reflects the level of skill required in producing high

### Multiflora data:

- Sales of *fynbos* (March 2017- Feb 2018) = 2,357,079 stems
- Sales of proteas (March 2017- Feb 2018) = 2, 345,281 stems
- Total flower sales (March 2017- Feb 2018) = 189,437,232 stems
- Proteas/*fynbos* = 2.5% of all flower sales by volume
- Turnover E21million in 2013
- Annual growth last 3 years = 7%.

quality arrangements. The supply chains are short as all the activity is occurring within a small geographical area. This is beneficial in terms of reducing cool chain challenges and also means that there are less stakeholders seeking to take a cut from the overall value of the product. It is notable that the quality of much of the product is relatively

high. Some such as wedding arrangements, exceptionally so. The improvement in quality for product sold within local markets is a significant shift observable in the last decade which can be seen as a driver for the growing importance of such local markets. One rural florist shop revealed that 50 bouquets are typically sold Fridays and Saturdays during the summer and that 60% of overall sales are of *fynbos* products. The mark-up for a typical bouquet is R15, therefore the overall margin from *fynbos* bouquets alone is R1500 for weekend sales.

Production for the local market can therefore be seen as an important contributor to the local economy and livelihoods, with jobs being created for harvesters, bouquet makers and business owners. The majority of jobs created in our survey were held by women. White women tend to be the senior figures within the supply chain although some Coloured women are also running businesses. There are clearly good margins being made by operators in these short supply chains, whilst the contribution to the broader viability of diverse businesses is important. For example, income from *fynbos* sales (especially where value is being added via bouquet production) can be important for landowners who not only have an incentive to retain their *fynbos* but can also invest into vital alien clearing work. On the downside, scrutiny of production for local markets is very limited therefore there are unlicensed operators, easy outlets for poachers and little attention paid to minimum wages and other labour rights.

**Figure 17: Examples of Margins and Quantities for Overstrand Cut-flower businesses**

Business	Bouquet cost	Bouquet price	selling	Quantities
1	R15	R30		100 on summer weekends
2	R20	R35		n/a
3	R15 Baskets R45	R30 Baskets R350		n/a Up to 100
4	Big bouquet R20 Small bouquet R10	R40 R20		70-80 per week summer 60 per week summer
5	R10	R20		130 per week

#### Trafalgar Place Flower Market, Cape Town

The flower market in central Cape Town known as Trafalgar Place holds a special place in the city's cultural history. Flowers have been sold in the area since at least the 1880s by dynasties of Coloured Capetonians (see Rabe 2010, 2011 for detailed historical accounts). The market has survived Apartheid-era segregation policies and more recent modernisation programmes. It remains a point of cultural interest, visited by tourists and is a thriving component of the city's and indeed, province's micro-economy. Whilst the size of the market has diminished, in the 1960s there were around 55 stalls, today there are 21, it is still a busy and evolving area of economic activity. The reduction in size of the market can be linked to increasing role of retailers in selling Cape Flora products. The market sells all types of flowers including indigenous products, which can be purchased as straights or in bouquets. The stallholders sell direct to the public and also have direct relations with other customers, for example, hotels, wedding planners and so forth. Relationships with remote customers are managed via cell-phone and WhatsApp, indicating how business methods are keeping pace with new technological developments. The geographical reach of the families who have been involved with the market during its history is extraordinary – members

of a single family are involved in flower trading at the N1 Mall in the Northern Suburbs, Somerset Mall, in Namibia and one family member is contracted to provide flowers for the Parliament buildings in Cape Town (Rabe 2011).

**Figure 18: Trafalgar Place**



Most of the *fynbos* sold is hybridized Proteaceae. The *fynbos* sold on the market varies from season to season. On the day of our survey (March 2017) there were 18 different *Fynbos* species and 1 other indigenous flower (*Streletzia reginae*) on the market. Some of the Protea and Leucadendron species which were past their prime were re-bunched as dried and dyed. All the other flowers for sale were non-indigenous cut flowers eg. roses and Eucalyptus.

According to the Chairperson of the Flower Association 45% of the flowers sold are now *fynbos* (more than double typical sales a decade earlier). This increase is thought to be due to the greater vase-life of *fynbos* and the higher prices of non-indigenous flowers. It can also be linked to the increasing trendiness of *fynbos* amongst the local population and the raised profile amongst tourists.

**Figure 19: Bakkie delivery and flowers on display**



**Figure 20: Fynbos Species identified for sale at the Trafalgar Market**

Veld harvested	Veld harvested Broadcast sown	Orchard grown hybridized Fynbos species
Protea compacta	Leucadendron platyspermum	Leucadendron safari sunset
Leucospermum truncatum		Protea sosara
Erica imbricata		Protea magnifica
Erica rhopelantha		Protea sylvia
Erica "prince of wales"		Brunia albiflora
Philica erecoides		Brunia albiflora (non-hybridized)
Brazelia lanuginosa		
Metalasia muricata		
Phaenocoma prolifera		
Asteraceae sp. (dry + color dyed)		
Stoebe plumosa		

**Figure 21: Prices of flowers on sale at Trafalgar Place**

<b>Veld harvested Proteas</b>	Buying for R4,50 / stem (current price) Selling – R10 / stem
<b>Orchard Harvested Proteas</b>	Selling price – up to R20 /stem
<b>King Protea</b>	Buy in up to R65 /stem for single Protea Selling - R80/stem
<b>Average bouquets of fynbos</b>	Selling – R30 (for locals)
<b>Average bouquets of fynbos</b>	Selling – R80 (for tourists)

The prices of the flowers are similar to comparable outlets, such as farms stalls and retailers such as Spar. Mark-ups are also comparable. One seller stated he typically has around R1250 worth of stock but during peaks such as Christmas and Mother's Day this will rise to R30,000. These peaks are critical for ensuring profitability. The sellers procure from a range of people, some as far afield as Port Elizabeth. *Fynbos* is procured from a small number of key Tier 3 businesses. Intermediaries also supply flowers to the stall holders. These intermediaries appear to procure on a daily trading

basis from various sources including the airport exporters, from whom they can pick up excess stock and/or rejected product. The sellers and intermediaries were not forthcoming with greater details about the details of their sourcing arrangements. Cool chain management is clearly a challenge for the flower sellers. The Chairperson stated that the sellers have the necessary permits: 'all our papers are in order'. The sellers also employ homeless street people on an *ad-hoc* cash basis to undertake work such as cleaning and delivering flowers locally. Some also guard the flowers at night.

#### **4.4 Major Trends within the Cape Flora Industry since 2005**

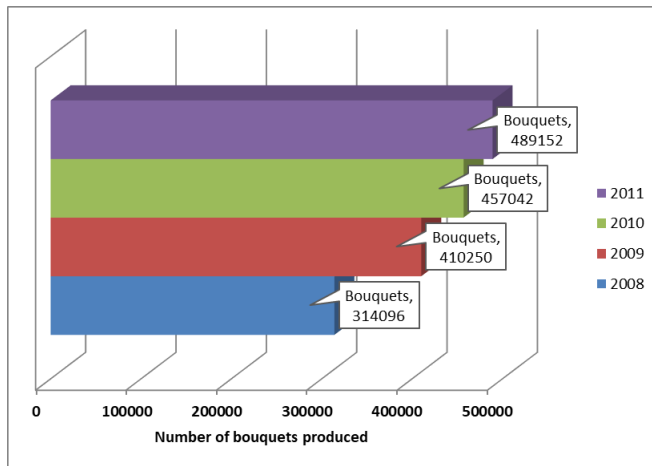
The *fynbos* industry grew steadily during the 1990s and 2000s. However, the global economic recession around 2008 affected the industry significantly causing some to wonder about its future potential, 'the Agulhas Plain farming industry (as a whole) has been suffering in the last decade and more specifically, the *fynbos* export market has not experienced growth and prosperity in recent years (Conradie pers.com)', Treurnicht 2010 p.128. During the subsequent decade the industry has undergone various re-configurations as opportunities to connect with new market opportunities have gathered pace.

Key trends have included: (i) an upward shift in the domestic market. Traditionally *fynbos* has been perceived as a second-class citizen within the South African flower market, to quote a manager within a leading SA retailer in 2014, 'I don't think *fynbos* is seen as trendy' (*Retail manager*). Relatively poor quality was a factor affecting its image. However, there has been a marked shift in the last few years. The increase in the range and quantity of *fynbos* sold in Woolworths stores is an indicator of the shift in consumer perceptions and spending patterns. Other retailers have followed suit and increased the range and quality of their *fynbos* offer. The Die Boord Spar in Stellenbosch, for example, contains a lucrative in-store florist which stocks a wide range of *fynbos* products. Proteas have also become increasingly popular as the flower of choice at South African weddings. The drivers behind this shift in consumer taste are complex. Certainly a shift in the image of *fynbos* has been instrumental. An improvement in the quality of flowers been sold on local markets has helped to improve perceptions. This reflects improvements made within the industry's value chains which have led to a greater focus on product quality. Interest in *fynbos* is also said to be linked to a greater appreciation for home grown South African products driven by broader style marketing campaigns and even the success of the FIFA 2010 World Cup.

(ii) the development of the bouquet market. The bouquet export market has grown rapidly in the last decade, with over 1 million being exported in 2017/18. This growth can be traced back to the involvement of the UK retailer Marks and Spencer around 15 years ago. At that time bouquets were exported in relatively small numbers and were very much a niche product. The involvement of Marks and Spencer and UK importer MM-UK led to a significant shift in demand for Cape Flora bouquets. A key catalytic factor was the instigation of the Sustainable Harvesting Programme via the

Flower Valley Conservation Trust. Marks and Spencer came on board with the programme as the image of ‘sustainably harvested’ bouquets was a strong fit with the firm’s brand image, which at the time was increasingly pushing its sustainability credentials (Bek et al. 2012; McEwan et al 2014). The market via Marks and Spencer grew rapidly and led to interest from other retailers in the UK, including Tesco, Sainsbury, ASDA and Morrisons (Fortnam 2015). The neighbouring graph illustrates the rapid growth of the bouquet sector for the UK market, which started at a negligible quantity in the early 2000s rising to over 300,000 in 2008 and just under 500,000 by 2011.<sup>5</sup> Thus, Cape Flora shifted from being an occasional niche product into being a core component of these retailer strategies. Breaking into the UK retail market was critical for expanding opportunities for *fynbos* products as supermarket retailers control around 45% of all UK cut-flower sales.

**Figure 22: Bouquet production at Fynsa packshed 2008-11**



The neighbouring graph illustrates the rapid growth of the bouquet sector for the UK market, which started at a negligible quantity in the early 2000s rising to over 300,000 in 2008 and just under 500,000 by 2011.<sup>5</sup> Thus, Cape Flora shifted from being an occasional niche product into being a core component of these retailer strategies. Breaking into the UK retail market was critical for expanding opportunities for *fynbos* products as supermarket retailers control around 45% of all UK cut-flower sales.

Overall the UK flower market is worth around £2 billion (Mintel 2015), *fynbos* bouquets at their peak have contributed around £15 million to this market. Over time the design of the bouquets has evolved, such that *fynbos* is often mixed with other species of flowers. This development in the UK market has been crucial in driving a more professional approach within the South African *fynbos* sector, via processes of ‘value chain upgrading’ which has been beneficial in many ways which will be outlined later in this report. Furthermore, it has been the catalyst for developing the higher value-added bouquet segment in other markets.

(iii) the development of a wider range of export markets. The industry is being successful in breaking away from reliance on the Dutch auctions and is developing direct links into many of its markets. Key developments in the last decade have been a growth in sales into South Korea, China, Russia and the Middle East. Exporters have successfully built relationships with importers in these markets and are supplying increasingly large volumes. Bouquets are an important component of these sales. A key enabler of market expansion has been the opening of new routes from Cape Town airport. Emirates and Turkish Airlines now offer access to the Middle East, European and Far East markets at competitive prices.

‘The big buzz is China. Everyone that’s brought new business on this year, it seems to have come out of the East. I know guys that have done 2 or 3 trips to China this year. When they get back their volumes rocketed. We are talking 3 or 4 tonne shipments. That’s a lot of product to ship out,’ *Tier 1 supplier*.

<sup>5</sup> N.b. Fynsa also developed some local markets including PicknPay. However, the majority of their bouquets were exported.

iv) business consolidation. Consolidation has been ongoing trend in the Cape Flora sector in the last two decades. The overall number of firms has decreased whilst the industry has become increasingly dominated by a handful of large enterprises, some of whom have grown organically whilst others have bought out their competitors. For example, in the dry sector SAD, Honingklip, Napier Flora and Bredaflora have both been taken over by Floraland Dry. The number of exporters in 2003 was recorded as 28 for the fresh industry and 5 for the dried (Portfolio Committee on Agriculture and Land Affairs 2003). The number of fresh exporters declined into single figures in the period after the Global slowdown of 2008/9 but has subsequently grown again to around 12/13 as the market has been sufficiently buoyant for small scale operators to become involved. There are now just two major exporters of dry product. At the harvesting level there appears to be a reduction in the number of small-scale (Tier 3) operators with more harvesting being undertaken by more formalised operations often directly linked to pack-sheds.

A Tier 2 supplier explains why it is increasingly important to control the picking and production process, 'The bakkie brigade.. yeah, yeah. In (*place name removed*) there is no one like that anymore. Most of the farmers have their own picking teams. And they go and pick flowers themselves. But for quality purposes that is the best thing to do. You cannot really let somebody else make flowers, bunches for you and you pay just packing. You must make that your quality... I mean we still, but we also we work with workers. The flowers come in 6 -7h00 at night they feel f\*\*k all, they just throw it into the boxes. And in the end it is your name that is gone'.

At all levels this drive towards consolidation is generated by economic imperatives. On the one hand larger scale operations can be more efficient and on the other hand larger businesses are able to operate more professionally and drive up quality standards, which are an imperative to serve most markets. These trends are consistent with those seen in the agri-sector more broadly in South Africa and globally. Agents serving retailers, for example, are typically seeking to 'do more business with less suppliers' as part of their drive towards efficiency, reliability and quality (Bek et al. 2017).

#### The Diversity of Business Models adopted by Leading Firms

There is great diversity in the business models deployed by the major players in the Cape Flora industry. Key variables include: market mix, product mix, extent of trading and production, relationship with market. The key features of sixteen of the main Cape Flora firms are outlined in figure 23 below. The figure summarises each firm's major markets, their product composition and their extent of reliance on *veld* harvesting and cultivation.



**Figure 23: Diversity of Business Models**

<b>Firm</b>	<b>Key Markets</b>	<b>Products</b>	<b>Sources of flowers</b>
A Tier 1	SA-Retailer UK retailer South Korea	Bouquets	60-70% cultivated
B Tier 1	40% Holland (direct not auction) UK-Retailer Italy Far East Middle East Canada and USA South Korea	Straights and bouquets	20% <i>veld</i> harvested 80% cultivated  60 suppliers
C Tier 1	Holland Germany Canada Italy South Korea Japan China USA Sub-Saharan Africa	85% straights 15% bouquets	45 suppliers 15 <i>veld</i> harvesters
D Tier 1	Holland auctions (20%) Germany Scandinavia	All straights	20 suppliers
E Tier 1	Middle East Far East Russia	Bouquets and straights	
F Tier 1	30% into Europe Belgium Holland Poland South Korea China Taiwan Middle East	Bouquets and straights	30-40% from wild 20-25 cultivated suppliers 7-8 wild harvesters
G Tier 1	Holland UK Germany France Sweden Canada USA South Korea Japan Dubai	Bouquets and straights	55 suppliers Buy-in bouquets Sell to wholesalers  Mix of cultivated and wild.

	India		
H Tier 2	UK retailer South Korea Italy 20% locally	Bouquets mainly	
I Tier 2	UK retailer SA retailer South Korea China North America 60-70% go to South Korea and China	Mainly bouquets	Mix of cultivated and wild
J Tier 1	China USA Japan Middle East (Dubai, Doha, Saudi Arabia) Holland	Mainly straights	90% cultivated 10% wild
K Tier 1	UK retailers South Korea	Bouquets	Mix of cultivated and wild
L Tier 2	UK retailers SA retailers South Korea Wherever agents want to sell	Bouquets mainly	Mix of cultivated and wild
M Tier 1	Germany Holland (not auctions) Local (small amount)		Largely broadcast sown and wild
N Tier 3	South Korea	Straights (bouquets?)	Broadcast sown, cultivated and wild
O Tier 3	South Korea (60%) Multiflora Wherever agents sell	Straights and bouquets	Broadcast sown, cultivated and wild
P Tier 1	Europe, especially Germany, Holland USA (small amount) East Asia (small amount)	Posies/bouquets	Wild and broadcast sown Up to 30 suppliers

#### Market mix

Most firms serve a diverse mix of markets in order to reduce risk and maintain flexibility. Everyone serves the European markets as these are the longest established and represent the greatest share of the global market. Other markets have been

growing increasingly rapidly in recent years, not least South Korea which is served by most of the main firms. Whilst there are certain key staple markets (such as Holland and South Korea) many markets are served directly by a small number of firms. Some firms work largely through agents and thus may have little knowledge as to the final destination of their product. Much product which is initially traded into Holland is likely to be destined for other markets as explained in the example below-

'What they do in Holland is that to each incoming box they will attach an outgoing bar code label. So this box goes to this client in Turin or this client in Naples or this client in Istanbul as an example. Because what's happened with them all through a value chain is out of Southern Europe they will import product into let's say Spain and Italy but in their own right they become a global trader because for various reasons they have attracted a client in Greece in Turkey and Romania because of the fact that they consolidate in Amsterdam and then they will truck all over western and eastern Europe', *Tier 1 supplier*.

The importance of the Dutch Auction has been falling away with more business being undertaken directly with overseas importers who directly service their client base. The auction is now seen as largely as a last resort by most exporters due to the variability in prices that are received.

'The auctions were never used in the right way. They were used as a dumping ground. When all the farms come in at the same time, there's an over-supply. The main channel was just Holland and the prices would be ridiculous or nothing', *Tier 2 supplier*.

All firms rely heavily upon the export market for revenue. However, some also target domestic retailers such as Woolworths, PicknPay, Spar and Checkers. Some also sell into more local markets or the auction at Multiflora. The latter tend to be used as a way of selling lower grade flowers which are not export grade.

Firms tend to operate as lone-rangers when developing their markets. There is very little sharing of information or joint approaches to market development. The fragmented nature of the market, which offers many niches across the world, facilitates this approach. The industry is fiercely competitive and secretive. Two suppliers indicated that they had been exposed to opportunities to exploit major new markets (one international and one with a South African retailer). However, each stated that they on their own simply could not supply the quantities required, therefore these opportunities remain undeveloped. This is an indication that the fragmented nature of the industry restrains its broader development.

#### Product mix

One of the most significant trends of the last fifteen years has been the growth of the Cape Flora bouquet market. This received significant impetus following UK retailer Marks and Spencer's entry into the market. More than one million bouquets are now exported each year, up from 300,000 in 2012/13 (CFSA 2018). Therefore, the share of the market held by straights has declined and it appears as though the number of wild harvested straights (excluding broadcast sown species) has declined

substantially. There are differences between firms in terms of the share bouquets and straights in their overall product mix. Some firms rely very heavily upon bouquets whilst others sell more straights. All firms rely on cultivated product and wild product to a greater or lesser extent. Despite claims in the 1990s that wild harvested product would be phased out the reality has been different with a considerable volume still being harvested from the *veld*. However, a greater proportion of *veld* harvested product is being drawn from broadcast sown stands within the *veld* and is being used in bouquets, especially for the UK market. The quantity of cultivated product has increased in recent decades due to a variety of reasons including: higher quality, breeding programmes which enable market friendly varieties to be developed and greater productivity (Bek et al. 2017; 2018).

**Figure 24: Dry arrangements**



The dry industry has declined in recent years due to changes in patterns of demand. The main market historically has been the German market, where dry product has been used to create tributes to place in graves. Cultural trends are shifting so this usage is in decline and competition from producers of alternative products is increasing. The type of product is

changing and is referred to as ‘decorative materials’ which now widely incorporate other products including stems from vines and fruit trees. The proportion of wild *fynbos* has declined to around 50% of total product.

#### Trading and production

Some firms base their business model around trading, meaning that they rely upon buying in all their product from suppliers. Most firms operate a production and trading model whereby they grow a proportion of their cultivated proteas and have harvesting teams who collect wild *fynbos*. All firms utilise third parties to supply at least some of their wild product. Having control over at least some of the supply is seen as key way of mitigating risk. There are considerable variations in the extent to which firms undertake their own production, some have a small number of hectares whilst others have over 100.

#### Relationship with market

Firms have different channels for engaging with the market and most deploy a mix of strategies. Those who sell through auctions have no relationship with the final market and just have to take the price that is offered to them. Other firms seek much more direct relationships selling into the import agents for major overseas retailers for example, or selling into South African retailers. Some firms sell to local agents who undertake the necessary negotiations and logistics work. Firms seek close relationships with the market in order to develop longer term relationships.

Communication around issues of quality and design are facilitated by close, long-term relationships. The majority of decorative materials (the traditional dry industry) are sold via direct relationships with clients overseas rather than through the auctions. Some of these clients are wholesalers/retailers and others sell the product on. Some raw material is also being sold into European producers who create products themselves.

### Supply Chains

Supply chains within the Cape Flora industry are marked by remarkable levels of diversity. Some are very short, reaching their market with the involvement of only one or two nodes whereas others are much more complex and can involve multiple nodes, each taking their own slice of the value.

The key stakeholders involved directly within supply chains include:

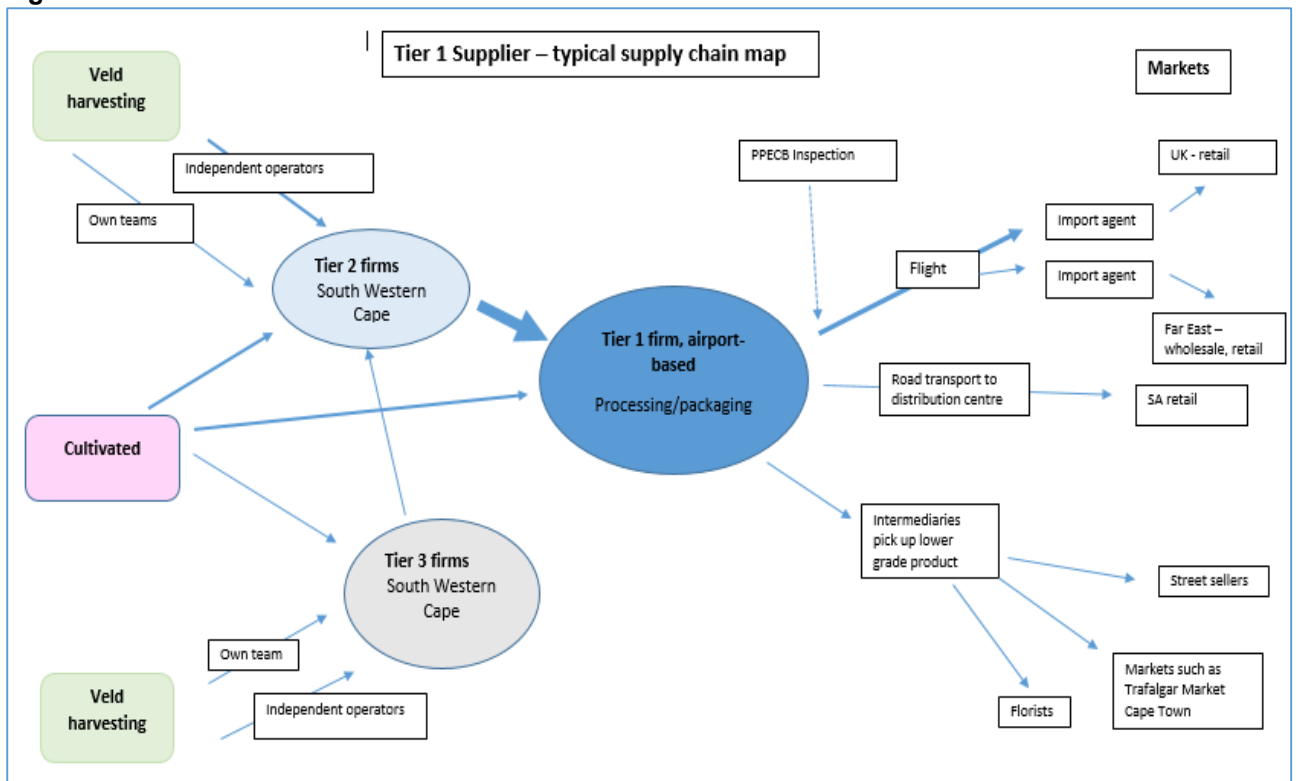
- Landowners who either harvest on their own property or who allow third party harvesting teams onto their property.
- Independent harvesting teams who pick on other people's land and sell it on to pack-sheds or other intermediaries.
- Pack-shed managed teams who pick on land owned by the pack-shed company and/or land owned by others.
- Cultivators who produce proteas and other focal flowers in orchards.
- Packsheds who process cut-flowers, produce bouquets and prepare consignments for market. Some sell to, or contract, export agents whilst others export directly. Packsheds vary widely in their scale and sophistication. See 25, 26, 27 below for categorisation of supplier types.
- Local markets – these take many forms, such as farm stalls, street markets, florists and retailers.
- Logistics companies who transport boxes of flowers from packsheds to the airport.
- Airfreight firms who arrange shipment of goods and ensure they reach their final destination.
- Airlines who usually fly Cape Flora on passenger planes. Some fly direct to market whilst others stop off on the way.
- Import agents/consolidators who take delivery of the consignments at their destination. Some, such as MM-UK then further process the flowers before despatching them to clients.
- Wholesalers/markets where flowers are sold on to other parties, sometimes florists and also to other intermediaries.
- Florists who then provide the final touches to the flowers/bouquets before selling them on to customers.
- Retailers who sell the flowers directly to customers. Retailers are significant players in the overall flower market in some countries, such as the UK.

Each of the above has the opportunity to extract value from the product as it passes through their hands. A single stem of *fynbos* can take one of many pathways to the final customer and pass through any number of hands.

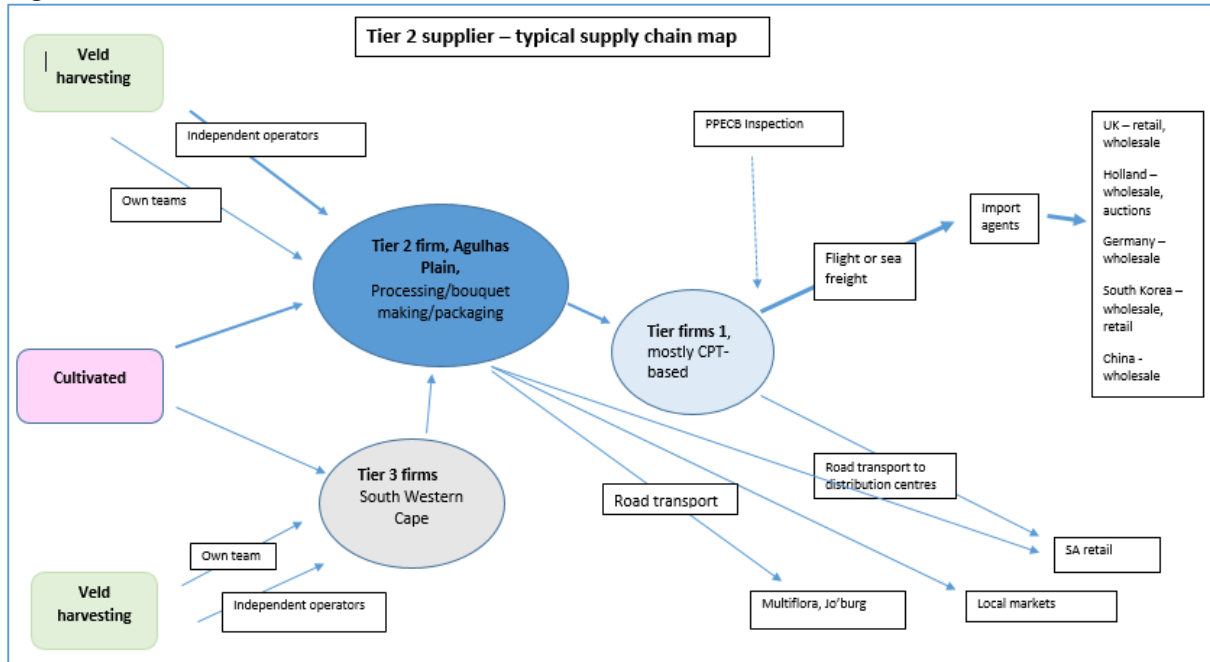
**Figure 25: Supplier categories**

Three broad categories of supplier can be identified:  
**Tier 1** – who undertake preparation for export or direct sales into formal domestic markets, this may include making or finalising bouquets;  
**Tier 2** – do not export directly but prepare straights and/or bouquets which are then passed on to Tier 1 operators for export or formal domestic markets;  
**Tier 3** – localised operators who largely process straights and bouquets directly into local markets or Tier 2 or even Tier 1 companies. Tier 3 incorporates independent harvesting teams.

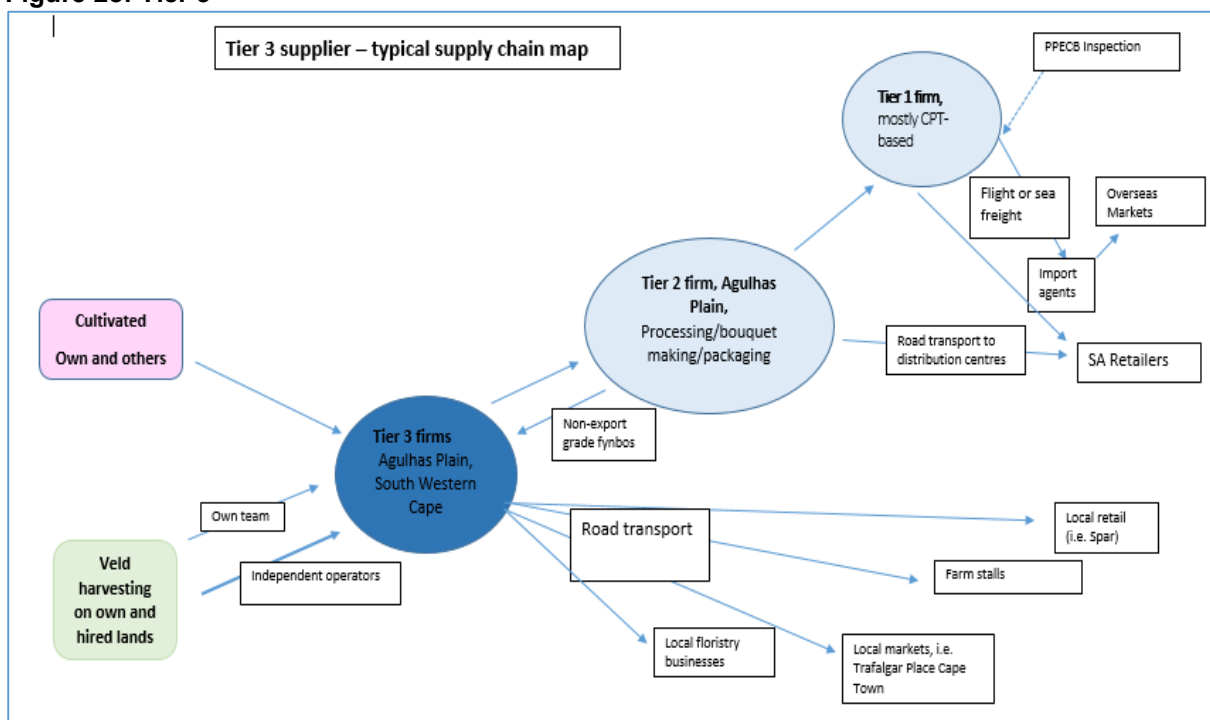
**Figure 26: Tier 1**



**Figure 27: Tier 2**



**Figure 28: Tier 3**

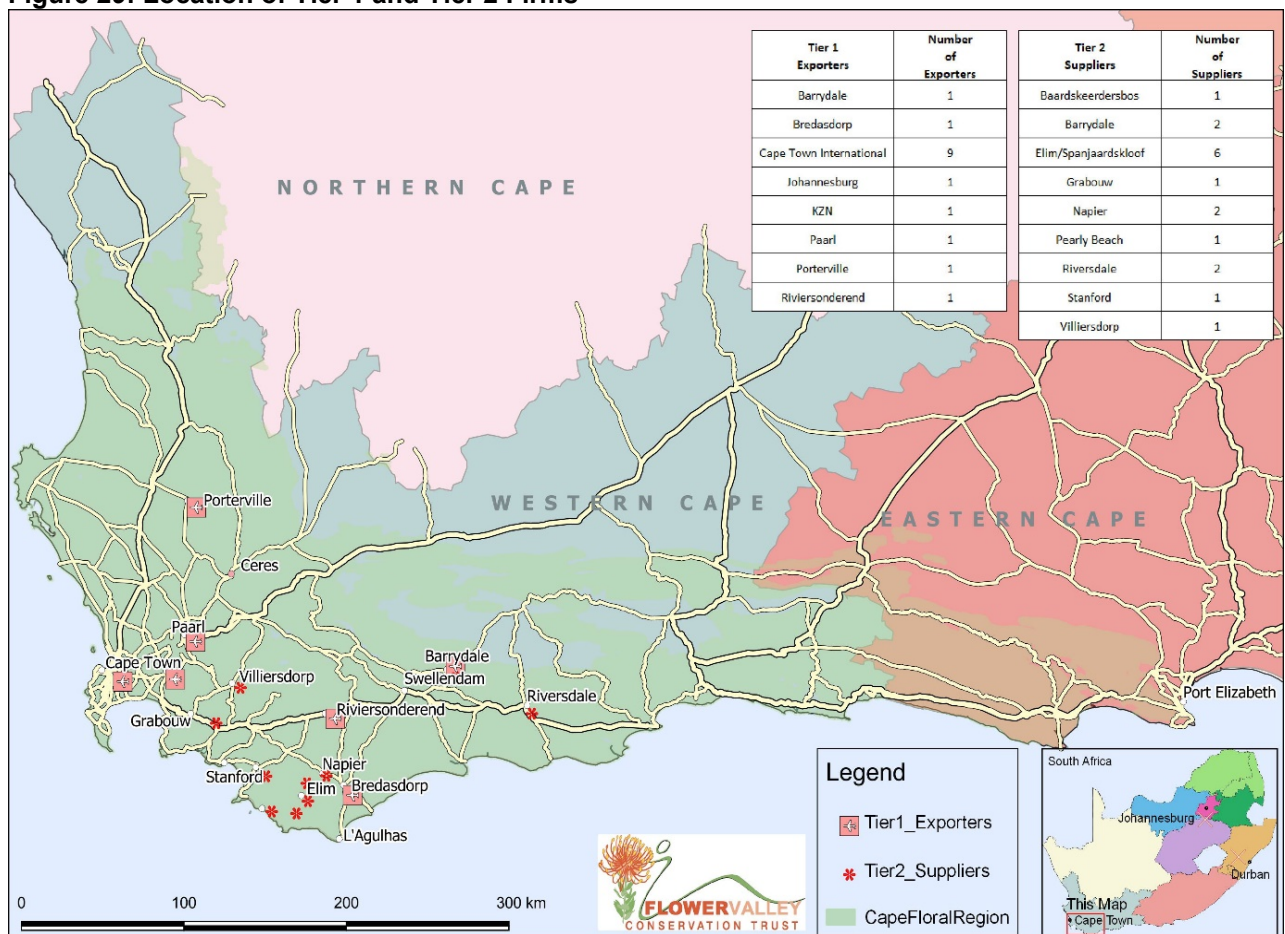


Researchers have expanded the notions of supply chains and value chains introducing the concept of (Global) Production Networks. These networks think beyond the movement of a product from source to final consumer by recognising the actors and institutions, such as regulators, that influence the operation of the supply chain. In the context of Cape Flora these include:



- CapeNature – who oversee the permitting system for the harvesting of wild flowers.
- Cape FloraSA – the industry body who oversee the marketing of Cape Flora products and who act to disburse the annual income from export levies.
- Flower Valley Conservation Trust – NGO who are the custodians of the Sustainable Harvesting Programme.
- Department of Environmental Affairs.
- Department of Agriculture who oversee permitting for land use change including increasing cultivated land.
- Department of Labour who regulate labour rights.
- National Government – set minimum wage.
- Perishable Products Export Control Board who ensure that exported Cape Flora meets the required standards. They also collect data and facilitate the collection of levies.
- Stellenbosch University – research into cultivation practices and impacts of wild harvesting.
- SANBI – who oversee the production of the Red Data List for endangered species.

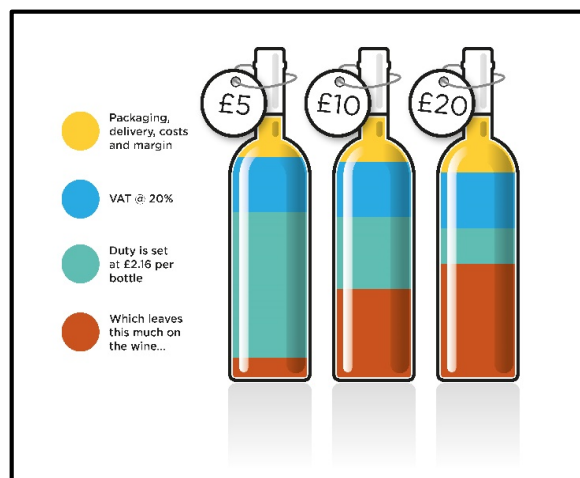
**Figure 29: Location of Tier 1 and Tier 2 Firms**





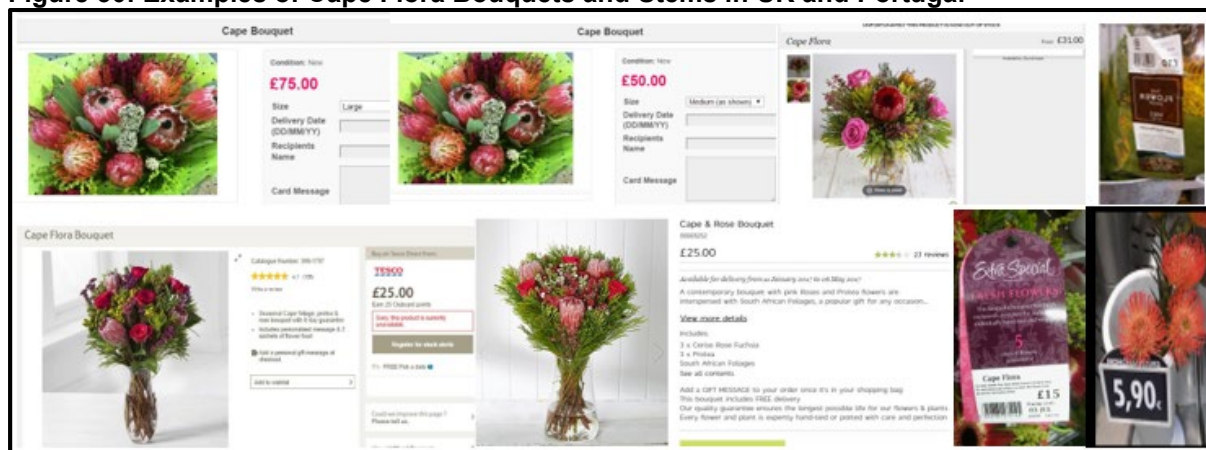
## 5.1 The Distribution of Value within the Supply Chain

The distribution of value within the supply chain is a highly complex and contentious issue. In common with other commodity supply chains across the world the weighting of value-added towards the point of sale is a source of disenchantment for producers. For example, online wine retailer Naked Wines revealed that the cost of the wine in a typical £5 bottle in a UK supermarket was just £0.37 (see graphic to right). For a £10 bottle the cost of the wine was £2.16. This example illustrates the extreme pressure on margins at the 'value' end of the retail market and emphasises the pressure on producers. The same applies within the Cape Flora industry. Until relatively recent Cape Flora tended to be described as a low value product. If we start by looking at the consumer end of the supply chain there is plenty of



evidence to suggest that good quality flowers, designed into appealing bouquets and marketed effectively can fetch good returns for the final seller. Thus, in the collection of images below we can see Cape Flora bouquets selling for £50 and £75 in a UK florist, £31 in a UK retailer Debenhams, £25 in Marks and Spencer, £15 in Asda and £10 in Marks and Spencer. We can also see a single Pincushion stem being sold in a mall florist in Lisbon, Portugal for E5.90 (this may not be a South African grown product). Thus, *fynbos* products are capable of attracting high prices from consumers, even in the highly competitive retail space.

Figure 30: Examples of Cape Flora Bouquets and Stems in UK and Portugal



Figures 31 and 32 below provide worked examples of the ways that value is distributed within two export value chains. Figure 31 illustrates the relatively low value of greens within a bouquet – a Tier 2 supplier is able to include 20 stems of greens for just R9. Protea prices increased between 2015 and 2018 but the price being paid for greens did not go up. Indeed, with the Protea prices increasing substantially there was pressure to maintain the price of greens. As a result, the value share held by the green stems dropped to only 20% of the value of the bouquet. Figure 32 illustrates the wide range of stakeholders taking a slice of the value as a bouquet moves through the chain. A bouquet containing flowers which cost the exporter R27 will end up retailing

for several times that value. It is salutary to note that the quantity of VAT earned on a bouquet by a European government may well be more than the value of the bouquet at the point it leaves the exporter's packshed. Thus, when considering the 'real' value of the Cape Flora industry it is important to reflect on the contribution to sectors such as logistics and the importer/retailer overseas. The broader impact and value of the industry worldwide is considerable. The full global financial impact of the industry may well be as much as \$100 million.

**Figure 31: Example of costing for export bouquet (source, a Tier 2 supplier)**

<p>2015 – Protea stem = R4          2018 – Protea stem = R7          20 stems of clean greens = R9 (circa 40c per stem)          5 stem Protea bouquet = R29 in 2015; R44 in 2018          2015 Greens represent 80% of the volume and 31% of the value          2018 Greens represent 80% of the volume and 20% of the value</p>
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**Figure 32: Example of costing for export bouquet destined for a European retailer (source, a Tier 1 supplier)**

- |   |
|---|
| <ul style="list-style-type: none"> <li>○ Bouquet contains 12-15 stems (2-3 focal, 10-12 greens) – total value = R27</li> <li>○ Cost of focal flowers = R15</li> <li>○ Value of greens = R12</li> <li>○ Exporters costs and margins = unspecified</li> <li>○ Freight = R32.40</li> <li>○ Importers costs and margins = unspecified</li> <li>○ Retail price = R90-R270 (including retailer margin)</li> <li>○ VAT in retail country = R18-R54.</li> </ul> |
|---|

Equally Cape Flora products are increasingly fetching good prices within retail outlets in South Africa. Woolworths offers a wide range of high quality Cape Flora products at a range of prices. The bouquets in the figure below are sold for R49 (for a Seasonal Greens bunch) and R99 (for a Seasonal Harvest bunch containing focal flowers). Higher value bouquets (especially those containing King Proteas) are also sold. It is interesting to note that Woolworths marketing plays strongly on the localness of the product – 'Local is Lekker' and the Indigenous quality of flora from the CFR, even for hybrid products. This approach clearly resonates with the Woolworths customer. There are also efforts to promote sustainability for some lines with the use of cardboard labels, biodegradable string and no use of cellophane wrap. This approach reinforces the sustainability qualities inferred by localness. High quality is also essential within the Woolworth's market. Retail prices in other stores such as PicknPay and Spar vary from the cheaper end, circa R35 per bouquet, through to R100+. Section 4.3 above

outlines how good levels of value added can be achieved for products targeted at niche markets such as weddings in the South African market.

**Figure 33: Examples of Cape Flora Bouquets for sale in Woolworths, South Africa**



#### Value for Harvesters

It is no secret that primary producers almost inevitably retain a small share of the final retail value of product within agri-commodity supply chains. Figures 32 and 34 illustrate examples of prices paid to harvesters for a range of wild products. These tables show that there are significant differences in the prices paid for different products. Using 2009/10 prices we can see that prices range from R0.15 per stem to R0.80 per stem. Approximately one third of this will be paid over to the landowner unless teams are harvesting on their own land. Figure 34 illustrates price changes over a 10-year period for several commonly harvested products. Most of these are low value and have increased very little in value over time. Certainly not sufficiently to keep pace with inflation. Prices paid for Protea Compacta have varied significantly, at times attracting prices above R1.50 per stem but at other times being around half that value. Supply and market trends are key influences on these values. The anomaly is Silver Brunia whose value has rocketed during this time as a result of demand rising and supply being insufficient. The impacts of this are explored elsewhere in this report. For harvesters able to access Silver Brunia there are great opportunities to earn a decent income, well above minimum wage levels. However, for teams whose bread and butter lies with the lower value greens their livelihood is more marginal. This is exacerbated if the land available to individual teams has a low density of harvestable species. In team dynamics also affect the earning potential of individuals. Experienced leaders will often ensure that they have access to the easiest areas to harvest and leave less experienced team members to work with the less productive patches. Rejections of flowers delivered to pack-sheds are a further problem for many harvesters. These are stems that the pack-shed state are not of sufficient standard for their markets. Harvesters are not paid for these. Some of our respondents complained that there can be a lack of transparency around the rejection process as notification regarding rejections may be made after delivery with little feedback. High rejection rates are not

sustainable for the environment (as biomass has been removed unnecessarily) or for people's livelihoods (as income, in an already marginal job, is reduced). Some harvesters also complain that payments from pack-sheds is not always prompt, which can cause major cash flow problems for small operators.

**Figure 34: Typical per stem prices paid to a Harvesting Operation 2009/10**

Species Name	Common Name	R/stem flowers and foliage	Flowers/Foliage cost
Passerina rigida	Gonna	0.15	0.05
Staavia radiata	Staavia	0.15	0.05
Erica corifolia	Erica pienk	0.23	0.07
Leucadendron xanthoconus	Salignum	0.23	0.07
Leucadendron platyspermum	Platty	0.23	0.07
Leucospermum truncatulum	Buxifolia	0.23	0.07
Metalasia muricata	Blombos	0.23	0.07
Phaenocoma prolifera	Cape Everlasting	0.23	0.07
Berzelia lanuginosa	Kol-Kol	0.31	0.09
Leucadendron linifolium F	Taurtum F	0.31	0.09
Brunia leavis	Brunia	0.80	0.00
Protea compacta		1.23	0.37
Leucadendron platyspermum	Platty Star (Dry)	0.80	0.24

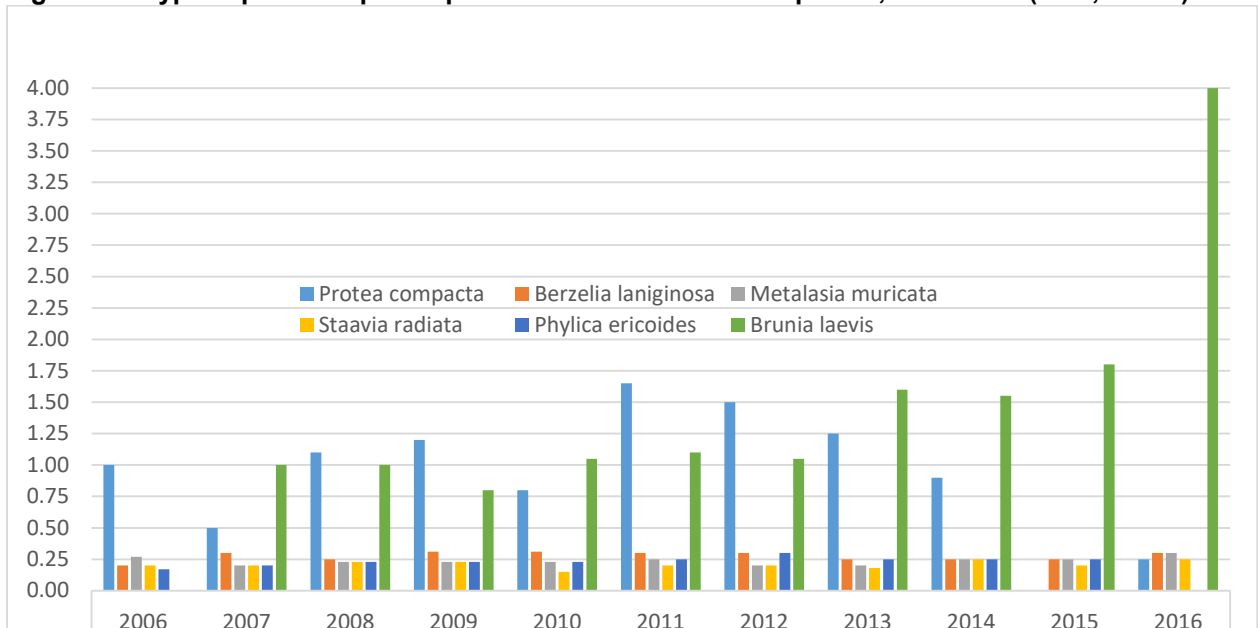
*n.b. 'R/stem flowers and foliage' is the price paid to the team by Tier 1 and Tier 2 suppliers*

*'Flowers/Foliage cost' is the amount the harvesting team paid to the landowner.*

**Figure 35: November 2009 Financial Statistics for a Harvesting Team**

- Total stems harvested: 147577
- Total rejects: 4984
- Total income: R42147
- Costs to landowners: R6226
- Residual income for month: R35920
- Residual income per stem: R0.24
- Therefore, there was R35920 from which to pay the harvesting team members, to service equipment and for the manager/owner's own salary/profit.
- 20 stems of greens might be used in a bouquet retailing for R160 overseas. Those 20 stems will have been worth around R4.8 to the harvester and R2.4 to the landowner. Therefore, the primary producers of greens will have captured **4.5% of the value** of the final product. The government in the country of sale will have captured 15-20% of the value of the final product.

**Figure 36: Typical per stem prices paid to a Harvester for six species, 2006-2016 (ZAR, Cents)**



**Figure 37: Prices paid by a Tier 1 exporter for specific species, 2018**

- Staavia radiata – R0.60 per stem
- Erica corifolia – R0.90 per stem
- Leucadendron Platyspermum – R1.20 per stem
- Berzelia lanuginosa – R1.00 per stem
- Brunia Leavis - R5.00 per stem

**Figure 38: Example of Silver Brunia sold as straights 2016**

Exporter purchased Silver Brunia for R54 per bunch then sold it into the North American market for \$10 (R140) a bunch including freight costs and exporter's margin.

### ***Indicative quotes***

'they play you off on each other. This is making our businesses small. You must remember the biggest in the flowers is not with us that is doing the flowers. Us, we, the flower pickers is getting a back drop on that money that the exporters are making. These exporters, they're making the money and they are the danger in this business', *Tier 3 supplier*.

'the flower business is a Mafia bank you know that. You can just talk to it's a very intensive Mafia Bank. I've seen it that our biggest opposition in the flowers is our buyers', *Tier 3 supplier*.

'That's what I do (*in a local retailer*). I said to them R20, she said to me that will be a bit steep I want R15. I said okay, "What are you going to sell my bouquet for?" She said R50. So R35 disappear, I put it onto their doorstep ... and from there R35 disappear', *Tier 2 supplier*.

'Every time they want a new guy in. Cutting the slices thinner and thinner', *Tier 3 supplier*.

## **5.2 Upgrading in the Cape Flora Industry**

One of the most significant trends in the industry in the last fifteen years has been the drive towards greater professionalism. This can be linked to technological factors that have enabled change, the drive for higher product quality and the rapid development of the bouquet market for retailers. This professionalization can be understood as part of a broader process of **economic upgrading** within some parts of the Cape Flora industry. The concept of economic upgrading within value chains has been developed in the last two decades by researchers exploring the dynamics of Global Value Chain development (Bolwig et al. 2010; Bek et al. 2017)). Economic upgrading describes the processes whereby attempts are made to capture more value during production. As the Box below illustrates such upgrading can take place in a number of ways, including upgrading products, usually involving further processing of raw materials and process upgrading whereby production processes are improved.



Upgrading is an important stage on the journey to maturity within an industry enabling local entrepreneurs to capture more value and (usually) encouraging greater skills development and thus greater remuneration within the workforce.

#### **Types of Economic Upgrading**

- **product upgrading** - moving into more sophisticated product lines;
- **process upgrading** - transforming inputs into outputs more efficiently by reorganizing the production system or introducing superior technology;
- **functional upgrading** - acquiring new functions (or abandoning existing functions) to increase the overall skill content of the activities;
- **chain upgrading** - firms move into new but often related industries.

(Humphrey and

Schmitz 2002)

Economic upgrading can be clearly identified within the Cape Flora industry, most especially within the supply chains feeding into UK retailers. The entry of Marks and Spencer as a major destination for Cape Flora bouquets was the initiation point for a significant shift in the industry. Bouquet production is an example of product upgrading and the volume of bouquets of Cape Flora being produced has grown considerably since the Marks and Spencer line began in earnest. Marks and Spencer, and the other UK retailers who later began to import significant quantities of Cape Flora, demand high quality and precise specifications. Most importantly, they required bouquets in increasingly large quantities. Servicing this market has required major shifts in production systems not just in the pack-shed but also down to harvester level.

Quality standards are very high with no tolerance for blemishes, inconsistent bloom size/shapes or variable stem lengths. Therefore, harvesters have been required to improve the quality of stems that they deliver otherwise their consignment is liable to be rejected and income lost. Changes within the pack-shed have been considerable in order to meet the volumes required at the right quality and price within tightly defined timeframes. Production lines have been developed using more advanced technology than has been the case previously within the industry. Therefore, the pack-shed is able to ensure speedy product flows and enhanced quality control. Specific innovations include the provision of scales, laser marked lines and rotation tables with built-in product specification information.

In order to maintain quality and vase-life advances have been made in cool chain technologies as it is crucial that stems are not exposed to excessive temperatures at any part of their journey from field to vase. It has been calculated that only 1.5 hours in an uncooled environment will reduce vase life by a day. The whole process of sorting flowers and creating bouquets has become much more complex and scientific. Research and development is continually ongoing to inform better planning and execution within the production process. Fynbloem has instigated a process flow methodology which ensures that cultivated flowers are cooled within 1.5 hours of harvesting which helps to retard the ageing process. The industry average time is 4-8 hours. Thus, Fynbloem are able to claim that they are the 'producer with the best cold chain for *fynbos*' (Fynbloem 2014).

Such changes in pack-shed systems can be seen as good examples of process upgrading. An exporter explains the imperative for upgrading in his business as follows, 'if we want more value in the chain we need to upgrade it...we need to get wastage out, we need to get precision in and we need protocols in. We need to understand, weight the costs', *Tier 1 supplier*.

The development of the Marks and Spencer market required wholesale shifts in production operations in order to meet quality and quantity requirements. This led to the development of Fynbloem's pack-shed in Riviersonderend which was designed from the outset with the needs of their market in mind. As well as requiring a smooth and efficient production system able to handle high volumes the pack-shed was designed to incorporate sustainability features compatible with Marks and Spencer's Plan A (Fynbloem 2014; 2015; 2016). Launched in 2007 Plan A is Marks and Spencer's pioneering '...eco and ethical programme that tackles both today and tomorrow's sustainable retail challenges' (Marks and Spencer 2018). Fynbloem's 2015 Sustainability Report (Fynbloem 2015) details the steps taken to construct a pack shed with high specification sustainability features. These include:

- Reduction of water footprint via state of the art irrigation systems in the orchards; use of reed mats to curb evaporation, cooling systems which reduce transpiration in the pack-house; 'green' plumbing and water efficient toilets; rainwater harvesting.
- Carbon footprint reduction via reduced transport costs by locating pack-shed close to orchards; sea freight trials; energy recycling in the plant; use of building design to control temperature extremes; use of a solar dome to allow natural light; various 'green' cooling technologies have been implemented.
- Building construction systems to reduce environmental impacts including close-radius sourcing of materials, timber recycling and use of passive solar control systems.

In 2014 FynBloem received recognition for its innovative approach being judged runner-up in the Marks and Spencer Farming for the Future overseas category.

These processes of upgrading have a social dimension too as greater skill is required within the workforce to ensure that such a sophisticated production system delivers consistently high standards. Opportunities have therefore been created for workers to progress into higher skilled and higher responsibility positions including management and supervision posts within the orchards and within the pack-shed. Staff training is an integral component of business operations. Opportunities for leadership training have been provided which have contributed to lower staff turnover and improved communication and teamwork. Adult education, life skills and opportunities to attain driver's licenses are all provided. The net effect is that the workforce is skilled to meet the challenges of being a C21st international supplier. The benefits for the business include reductions in staff turnover, low absenteeism rates and greater overall productivity. Pay levels start at 12% above the minimum wage. Supplying into the UK market also requires a SIZA ethical audit to be undertaken which ensures that standards are not just legal but also meet internationally accepted levels of social compliance.



The upgrading outlined above relates specifically to the value chains linked in to UK suppliers with the strongest impacts being experienced at the level of the exporting pack-shed Fynbloem. However, there are implications for their broader supply chain who need to meet exacting quality standards and to be able to fulfil large orders. Thus, increased levels of professionalism and upgrading are required to meet these requirements. There is also an expectation from the market that Fynbloem's suppliers will be compliant with the Sustainable Harvesting Programme, which incorporates standards linked to wild harvesting practice and legal/ethical standards at the level of harvesting teams.

Similar trends towards upgrading can be observed amongst other exporters and within their supply chains especially those supplying directly into (higher end) retailers. Increased demand for Cape Flora bouquets in other markets is also leading to economic upgrading in other pack-sheds thus creating the opportunity to add more local value and create employment for skilled bouquet makers. However, there are marked disparities within the industry in terms of the extent of upgrading that occurs and the extent to which its benefits are shared with workers. There remain sizeable pockets that can still be described as 'cottage industry' which run fairly informally. Furthermore, the upgrading process required to supply a supermarket programme can be expensive. Exporters are thus reliant upon the programme remaining in place for a number of years in order to re-coup their investments. Shifts in retailer strategy can have severe impacts upon the pack-shed concerned. Several packsheds have gone out of business for this reason in the last decade (see Gooch 2015). Large supermarket programmes also enable buyers to exert immense pressure upon prices, which again can be highly problematic.

#### Technological changes

Some exporters are placing USB loggers into their boxes to record temperatures during their journey overseas. The agent overseas then downloads the data and sends it back to the exporter. Using this technology, it is possible to view temperature changes during the course of the journey and to compare these with online flight tracking tools to identify points in the journey where temperature spikes occur. One exporter stated that temperature fluctuations for one shipment had been 30C, which is clearly not compatible with maintaining the freshness of the product. Such data enables exporters to make decisions about optimum routes, choice of airlines and logistics agents. Feedback from overseas agents also allows exporters to learn about the impacts of such temperature changes upon quality.

The advent of the internet and mobile communications has triggered considerable changes in the speed and efficiency of the industry. Information, such as product availability, quality, order sizes, reject information etc, can now flow much more rapidly within the supply chain. WhatsApp has become a core part of most exporters business and WhatsApp groups are used to share information between key interest groups. Examples of usage include, clients asking to see photographs of product which is currently available; cultivators sharing photos from the field with potential buyers who can assess likely timings of availability and volumes; evidence of poor quality can be sent up the chain to verify grading decisions. Websites and online trading platforms have obviously enabled exporters to reach out directly to their client base. As well as

increasing the efficiency of business transactions these technologies have increased transparency within business relationships and created greater levels of trust.

‘every box that leaves my warehouse, I personally open and check and take a photograph, ... I send all those pictures on WhatsApp to 3 clients and this is what you ordered, this is what I have got... and it’s amazing how that WhatsApp can find it’s way around. And it’s amazing how powerful WhatsApp is in the flower community from the (United) States point of view’, *Tier 1 supplier*.

### **5.3 Standards, Certifications and Sustainability**

The global cut flower industry lags behind other sectors such as fruit and wine in terms of the application of ethical and environmental standards and certifications. However, there is a gradual shift occurring with more certifications being available and applied in the flower industry. The recent declaration by the Dutch Flower Group that 90% of all its global volumes will need to have at least one certification by 2020 is a sign of the ongoing shift in the industry (van Vijverden 2017). It is likely that Global-Gap will be the solution to this requirement for the cultivated sector. No viable option exists for the wild sector, although the SHP could be developed to fit this role in concert with the SIZA environmental standard.

The *fynbos* industry lags a long way behind its peers in the global flower industry and its local peers in fruit and wine. The most common standard that occurs within the industry is Global-Gap which many cultivators possess, mainly because they also grow fruit or wine grapes and have markets requiring Global-Gap. Woolworths prefer its suppliers to have at least Global-Gap. However, few markets require producers to have certifications of any kind. The Multiflora market does not require any certifications and does not inform customers of the availability of certified product, primarily because there is no demand for such information. This contrasts with the Dutch Auctions (and some European wholesalers) who now routinely provide information about certifications when selling product. Several interviewees stated that although they have been asked to meet certain ethical criteria their non-compliance has not been led to them losing sales.

The only market which demands higher levels of certification is the UK retailer market. Thus, Fynbloem have undergone a SIZA audit. This is mainly at the behest of Marks and Spencer, other retailers are less prescriptive largely because the overall volumes of Cape Flora that they sell are not large enough to present a significant risk.

#### **Indicative Quotes**

‘But, there’s absolutely no pressure on us (to be certified), whatever. Nothing. Zero. Zilch. Zip. Nada’, *Tier 2 supplier (mainly cultivated)*.

‘I can forward you an email that was sent to me by the suppliers that were buying flowers from us. And they said, “Please fill in the following forms.” And I opened it and it was a 20 page document, and I said, “You know what? Stuff that.” So, I didn’t fill in the forms and I kept on selling them flowers and they kept on buying my flowers’, *Tier 2 supplier (mainly cultivated)*.

'Marks & Spencer they make money. And they make money out of the flowers. They do lots of money. So are they the ones that are going to tell me "You not sustainable or whatever, no we don't want your flowers" Ha?', *Tier 2 supplier*.

'For me personally those things have to be in place because it is there for a reason. But I don't get it requested. Fruit and vegetables is different. It is totally different, it's like the flower industry is a bit lackadaisical. It is living in the past a bit. There is no control', *Tier 1 supplier*.

'I think the industry must be much involved in getting all this stuff in place and it must be required for exporters to have all the Eurep-Gap and Global Gap certificates in place. And make sure all those farms comply to all the rules and regulations,' *Tier 1 supplier*.

'I know of farms, where I have walked up to the packhouse and thought Geez this is primitive. Then a bunch of guys that you walk in and everyone is in gum boots and there's machines and hairnets and this and that. They have got aprons and safety covers and goggles. It's totally different,' *Tier 1 supplier*.

'Ja, we'll need to have some sort of agricultural practice certification, we'll need to have a socio-economic type or social audit or something like that is coming our way. We'll need to show that we can...ja, I think that should be the easiest thing to get through. But we'll need all those accreditations going forward, no question. I think the sooner we can get it the better. We plan to do them in the next couple of years', *Tier 2 supplier*.

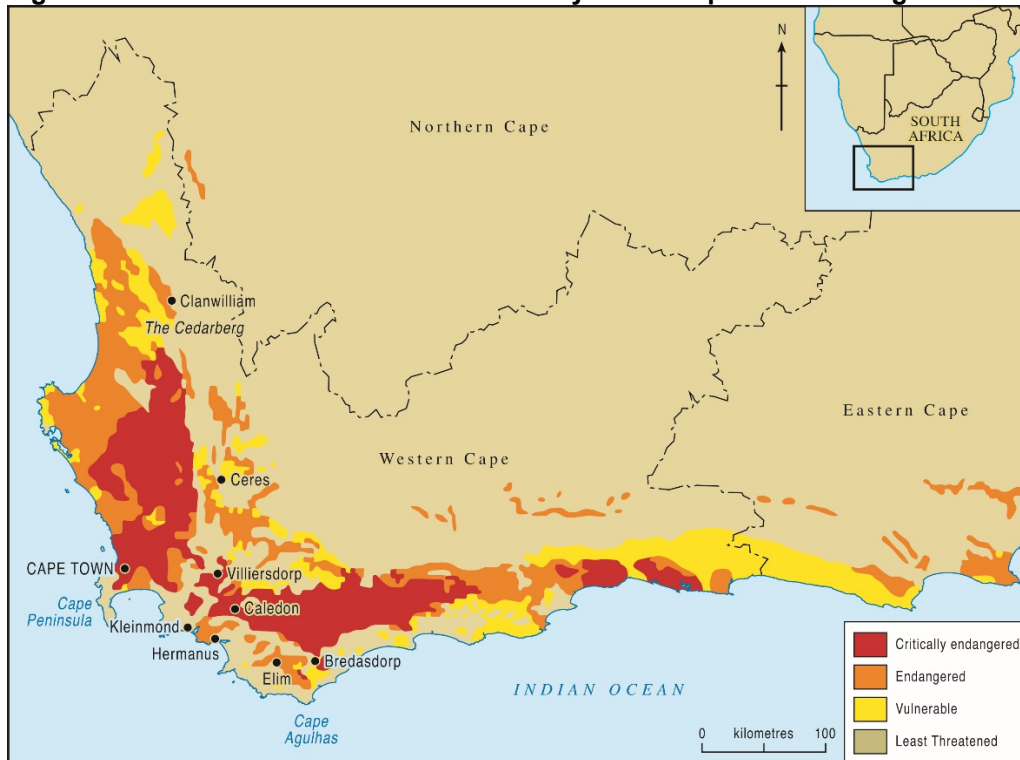
#### **5.4 The establishment of the Sustainable Harvesting Programme (SHP)**

The Flower Valley Conservation Trust was established in 1999 following the purchase of Flower Valley Farm by conservation NGO Flora and Fauna International (Bek et al. 2014). The intention was to preserve biodiversity and to promote the sustainable utilization of natural resources. Concern has been growing that wild harvesting of *fynbos* was one of the activities contributing to species decline in some areas. Figure 39 below illustrates the extent to which areas of the CFR have become threatened or even critically endangered. The Sustainable Harvesting Programme was introduced in 2003 with the aim of promoting sustainable practice amongst wild harvesters and suppliers of *fynbos* into local and international markets. One of the SHP's first achievements was the development of a Sustainable Harvesting Code of Best Practice which laid out guidelines for wild harvesters.

In precis, the SHP's original objectives were as follows:

1. To have a well-functioning supplier and landowner body in place which champions and implements best practice in farming, land use and *fynbos* harvesting and which supports producers and promotes employment of local people.
2. To have a strategy for research and monitoring.
3. To have an assurance scheme in place that includes social, labour, environmental standards.
4. To have at least 4 major retailers who source flora and bouquets solely from producers which have been through the Assurance programme.
5. To have a more efficient harvesting licencing system in place.

**Figure 39: Levels of Threat to the Biodiversity of the Cape Floristic Region**



The programme developed markets in the UK via the retailer Marks and Spencer, who for several years were supplied with Cape Flora bouquets via the Fynsa packshed. This market grew rapidly and expanded into other UK retailers and PicknPay who endorsed the SHP. Fynbloem have subsequently taken over as the main suppliers into Marks and Spencer and other UK retailers, via MM-UK.

- The SHP itself has evolved considerably. Its objectives have been refined as follows: To provide a system for measuring compliance to ethical practices.
- To provide services to support the ability of small *fynbos* businesses to meet ethical practices.
- To influence change within the supply chain and regulatory bodies to enable best practice.

Sustainable harvesting training is offered to suppliers and a suite of tools have been developed to support monitoring and improvements to harvesting. These include social and environmental baseline assessments which evaluate the practices of Tier 2 and 3 suppliers. Exporters/Distributors use the services of the SHP and are therefore not members *per se*, however they are offered certificates which indicate their membership of the programme and their compliance levels of their supply chains. This programme is highly innovative (possibly a world first in terms of being a locally derived solution which is applicable to a wild harvested industry) and creates the potential to generate high levels of transparency and traceability within supply chains. The development of the I-Fynbos app is an important initiative in this regard.

The SHP currently has 30 members comprising 19 *fynbos* suppliers, 6 landowners, 2 pack sheds and 3 micro (Tier 3) pack sheds.

Sections 6.4 and 6.5 below provide summaries of the outcomes from the environmental and social baseline assessments undertaken as part of the SHP.

### **6.1 The Wild Harvesting Industry**

Obviously the origins of the industry lie in the harvesting of wild product from the natural *veld*. Formal cultivation has come to play an increasingly important role providing the higher value focal flowers and greater certainties in terms of quality and timing of production. Predictions were made that C21 demands for quality and certainty would lead to the wild sector becoming less and less important, *'the industry shows promising signs of growth potential, but certain aspects need considerable attention for this growth to be realized. The practice of harvesting in the wild, for the fresh flower trade, will have to be phased out and replaced with cultivated plantations'*, (Coetzee and Middelman 1997).

However, these predictions have proven unfounded. Cape Flora SA datasets indicate that wild product remains a key component of the industry with 'greens' (albeit a category that includes non-indigenous product) representing 46% of fresh flower exports. In addition, some of the focal flowers will also have been wild harvested. Research undertaken in 1989 revealed that 300 species of wildflower were being used within the fresh and dried industries (in Middelman p.123). A narrower range are used today. The precise figure is unclear due to the challenges of accessing such summative data from the CapeNature database, however, one of the leading Tier 1 suppliers lists 80 species on its permit. This is probably a reasonable guide as to the numbers commonly harvested at a commercial scale. There are other species harvested in small numbers for very local markets. Perhaps as many as 150 species are harvested at least occasionally.

Given the increasing need for consistent quality and well planned production, why does the wild sector, renowned for its variability, still persist so strongly? (i) the wild sector offers an array of interesting (not to say unique) species such as Silver Brunia which catch the consumer's eye in ways that even the most hybridised of cultivars struggle to do. Furthermore, the naturalness of the product adds to its appeal for consumer. (ii) the greens offset the focal flowers in an aesthetically appealing manner. The balance within bouquets 'works' very well. The variety of greens on offer create much variety for bouquet and floral display designers. (iii) greens (for the most part) are cheap. Bouquets can be filled out for a fraction of the price of using cultivated flowers. (iv) the increase in broadcast sowing, a more economically efficient form of production, ensures that high volumes of key species can be available. (v) harvesters are becoming better at their job in terms of picking consistently good quality stems which meet market criteria. This ensures that quality product is available to satisfy demanding markets such as retailers. (vi) The wide variety of available species means that substitutes can usually be found when there are problems with availability of individual species.

### The Permitting process

Permits are required by various stakeholders within the supply chain. Landowners, harvesting teams, packsheds and sellers (including exporters) all require permission to sell natural products. Applications are submitted to CapeNature, whose task it is to ensure that harvesting of severely endangered species does not take place and that sufficient stocks of other species exist for harvesting not to pose a threat to the longer term survival of species in any given location. Figure 41 below shows an excerpt from a permit outlining the key features which permit holders should adhere to. These include; only harvesting/selling species specified on the permit; carrying documentation during transport of product; detailed invoices must be maintained and exchanged. Breaches of these requirements can lead to fines being issued. The most common incidents occur when CapeNature officers stop vehicles transporting *fynbos* and the drivers lack the necessary paperwork. There are very few fines issued. CapeNature lack the resources to maintain a high level of visibility or to proceed with actions.

According to one of our respondents, 84 permits were granted in 2016 via CapeNature as a whole for cultivation of *fynbos* and 470 permits were granted for wild harvesting. The latter include duplicates i.e. landowners and harvesters. Around 50% of the permits for wild harvesting apply to the Overberg region. Riversdale has the next highest number, although substantially less in total. The Overberg also has the widest range of species harvested.

The current database does not facilitate more detailed investigation, for example, to identify how many permits were granted solely to harvesting teams, how many individual properties are harvested on and how many different harvesting teams exist. Nor can lists of species be produced. According to our interviewees in CapeNature it would require analysis of each individual application to work out these forms of data. The central database (which for all permits across the organisation is 11,000 pages!) is not set up to interrogate data in these ways. Although all respondents indicated that such functionality would be very useful and assist in their daily operations.

### Information provided by CapeNature staff Riversdale Office (Southern Cape)

Permits	Key species	Comments
24 properties 14 permit holders	<i>Leucodendron galpinii</i>	<ul style="list-style-type: none"> <li>Widespread broadcast sowing</li> <li>L. galpini only allowed to be harvested from broadcast sown stands.</li> </ul>
	<i>Leucodendron muiirii</i>	
	<i>Leucodendron salignum</i>	
	<i>Protea repens</i>	
	<i>Protea grandiceps</i>	
	<i>Protea cynaronides</i>	
	<i>Erica discolor</i>	
	<i>Erica bicolor</i>	
	<i>Berzelia lanuginosa</i>	
	<i>Berzelia abratonoides</i>	

## Porterville Office

Permits	Key species	Comments
5 harvesters with permits	<i>Protea repens</i>	<ul style="list-style-type: none"> <li>• Various species harvested in very small amounts for local bouquet production.</li> <li>• 7 permitted cultivators in the region and very large Protea nursery (with more than 70 species permitted).</li> <li>• No broadcast sowing as far as CapeNature are aware.</li> </ul>
	<i>Leucadendrom plumosum</i>	
	<i>Leucadendrom rubrum</i>	
	<i>Protea laurifolia</i> (small amounts)	

## Boland Office

Permits	Key species	Comments
<ul style="list-style-type: none"> <li>• 5-7 harvesters with permits (annual variation)</li> <li>• 29 properties have permits for wild harvesting (half also cultivated).</li> </ul>	<i>Protea repens</i>	<ul style="list-style-type: none"> <li>• 50-50 split between wild and cultivated permits.</li> <li>• Wild harvesting in Grabouw, Elgin, Kleinmond, Betty's Bay, Villiersdorp.</li> <li>• Buchu also harvested in the area.</li> </ul>
	<i>Protea cynaroides</i>	
	<i>Protea nerifolia</i>	
	<i>Protea laurifolia</i>	
	<i>Protea compacta</i>	
	<i>Protea grandiceps</i>	
	<i>Protea coronata</i>	
	<i>Protea magnifica</i>	
	<i>Brunia albiflora</i>	
	<i>Brunia nodiflora</i>	
	<i>Berzelia lanuginosa</i>	
	<i>Erica plukenetii</i>	
	<i>Erica imbricate</i>	
	<i>Leucadendron daphnoides</i>	
	<i>Leucadendron rubrum</i>	
	<i>Leucadendron salignum</i>	
	<i>Leucadendron salicifolium</i>	
	<i>Mimetes hirtus</i>	
	<i>Serruria adscendens</i>	
	<i>Serruria florida</i>	
<i>Agathosma betulina</i>		
<i>Agathosma crenulata</i>		
<i>Leucospermum cordifolium</i>		

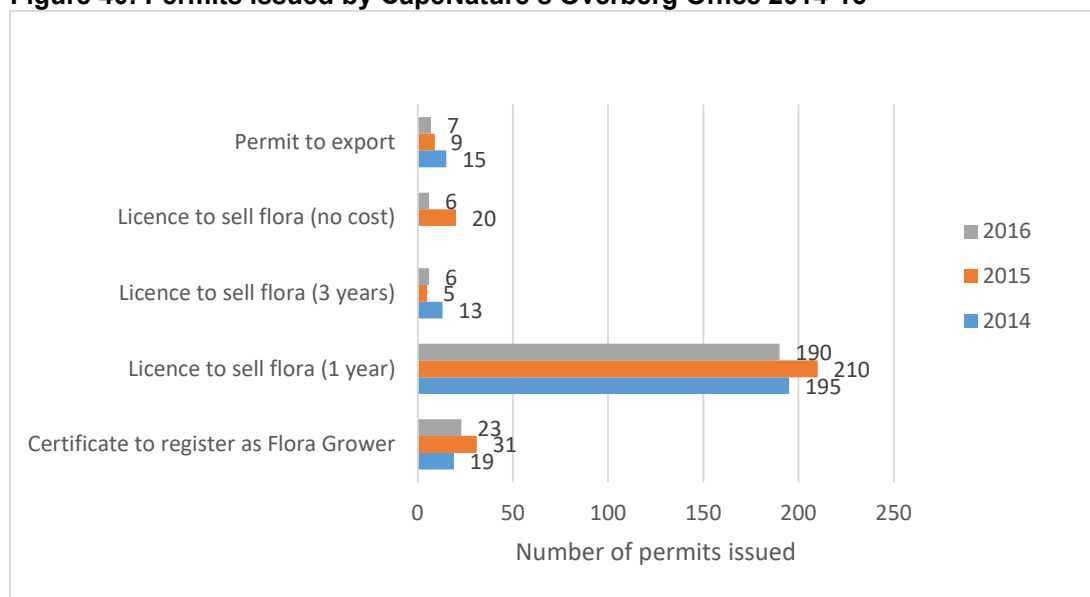
	<i>Leucospermum reflexum</i>	
	<i>Phylica spp</i>	

### Hermanus (Agulhas Plain)

Permits	Key species	Comments
<ul style="list-style-type: none"> <li>• +/-250 wild harvesting permits issued 2015</li> <li>• Land use conversion applications common</li> </ul>	<i>Leucadendron platyspermum</i>	<ul style="list-style-type: none"> <li>• Most heavily harvested region</li> <li>• Broadcast sowing common practice.</li> <li>• Poaching known to occur but very hard to catch and prosecute.</li> <li>• Handful (3-4 pa) of permit violations observed.</li> <li>• Limited resources to deal with illegal land conversion and poaching.</li> <li>• Greater number of species commonly harvested due to variable geology (limestone and sandstone species).</li> </ul>
	<i>Stoebe plumosa</i>	
	<i>Syncarpha vestita</i>	
	<i>Brunia laevis</i>	
	<i>Berzelia lanuginosa</i>	
	<i>Berzelia abrotanoides</i>	
	<i>Staavia radiata</i>	
	<i>Brunia noduliflora</i>	
	<i>Brunia albiflora</i>	
	<i>Erica imbricata</i>	
	<i>Erica plukenetii</i>	
	<i>Erica coccinea</i>	
	<i>Protea compacta</i>	
	<i>Protea obtusifolia</i>	
	<i>Protea susannae</i>	
	<i>Leucadendron meridianum</i>	
	<i>Leucadendron muiirii</i>	
	<i>Protea speciosa</i>	
	<i>Leucadendron coniferum</i>	
	<i>Leucospermum cordifolium</i>	
<i>Protea cynaroides</i>		
<i>Leucadendron linifolium</i>		
<i>Protea repens</i>		
<i>Protea longifolia sp. longifolia</i>		
<i>Leucadendron laureolum</i>		
<i>Leucadendron xanthoconus</i>		
<i>Aulax umbellata</i>		
<i>Thamnochortus insignis</i>		
<i>Phylica ericoides</i>		
<i>Anthospermum aethiopicum</i>		



**Figure 40: Permits issued by CapeNature's Overberg Office 2014-16**



**Figure 41: Legal Requirements of a CapeNature permit**

- take note of the contents of the below-mentioned legal requirements and understand their implications:
- > That the boundaries of the property where the flora grow have been pointed out to my employees/pickers.
  - > That no protected flora that is not specified on my license may be picked or sold.
  - > That the legislation has been fully explained to me regarding the purchase, sale, donation and receipt as donation of protected flora.
  - > That the legislation has been explained to me regarding the import, transport and export of protected flora between provinces as well as to and from foreign countries (CITES).
  - > That it has been explained to me how and where to apply for any other flora licenses or documentation.
  - > That I may trade with or transport protected flora only if I have the necessary documentation in my possession which authorizes the trade or transport.
  - > That it has been explained to me that the selling license has an expiry date and that the onus rests on me to renew it in time.
  - > That it has been explained to me that in certain cases additional permits may be required from the Department of Agriculture.
  - > With reference to registered flora sellers (one year licenses), that a selling license does not allow me to collect any protected flora or seeds from flora in the veld or to trade with any protected flora or seed which has not been obtained from a registered flora seller.
  - > That I must keep an invoice book for each transaction, in which the following information is specified:
    - a) Full name and address
    - b) The purchaser / receiver's full name and address
    - c) The date of the transaction
    - d) The name and amount of each species which is sold or donated
  - > That the above-mentioned invoice must be given to the purchaser / receiver

## 6.2 Economic, Employment and Livelihood Impacts of the Industry

The economic impacts of the *fynbos* industry are highly significant within certain localities, providing opportunities for people to secure livelihoods in areas where few alternatives exist. Our survey revealed that 787 people are employed at Tier 1 suppliers and 565 at Tier 2 suppliers. This survey captured data for the majority of significant suppliers at these two Tiers. Allowing for the handful that did not supply data we can estimate that around 1500 people will work at this level in the industry.

Around one-third of these in the dry sector. The vast majority of white people working in the *fynbos* industry work in Tiers 1 and 2, predominantly in office roles. The remainder of the workforce at these levels is split approximately one third Black and two thirds Coloured. Most employment within these Tiers is permanent, with seasonal workers drafted in during peaks such as Valentine’s Day and Mother’s Day. Tier 3 suppliers are smaller operations, less than 10 people in total usually. More than one third of their workers are classed as seasonal, whilst there is a greater proportion of Coloured workers in this sub-sector.

The wider impacts of the industry can be seen in terms of the numbers of people benefitting within households/families for each employee in the industry. Our survey of 41 firms suggested that there are as many as 4470 beneficiaries. The impacts upon livelihoods in locations such as Bredasdorp and Napier are considerable, with many thousands of individuals benefitting from the industry directly or indirectly.

**Figure 42: Employment Trends across the Three Tiers**

	Total Employees	perm	% Seasonal	% Male	Perm Female	non-SA nationals	% Black SA	Coloured	People benefitting
Tier 1 (9)	787	92	8	16	84	0	32	68	2442
Tier 2 (17)	565	82.5	17.5	47	53	3	32	65	1724
Tier 3 (15)	133	63	37	41	59	4	18	78	304
Total (41)	1485	88	12	24	76	1	32	67	4470

- (n) = the number of firms that provided data.
- All firms provided total employment data but less were able or willing to provide breakdowns, especially in relation to number of seasonal workers and racial groups.

### Race and Gender

In 2003 the Chair of SAPPEX informed the Agriculture and Land Affairs Portfolio Committee that ‘through proper financial support, it will be possible to extend the industry towards initiating projects in BEE’ (Portfolio Committee on Agriculture and Land Affairs 2003b). Relatively little progress has been made towards achieving meaningful BBE outcomes within the industry. The most notable achievements have been in terms of initiating harvesting teams owned by (usually) Coloured people. There are handful of such teams in the industry that have been set up with direct support from packsheds/exporters. Others are independent businesses, some of which are run by women. Several of the business owners note that it is struggle to become economically viable as the costs of capital investment, such as *bakkies*, are high, reasonably priced loans hard to come by and running/maintenance costs are increasingly expensive, whilst prices paid for most wild-harvested product remain more or less static. These challenges are also felt by people operating in the alien clearing industry in the same regions (see Bek, Binns and Nel 2017).

The majority of pack-sheds are owned and run by white men (a small number are managed by husband and wife teams), whilst senior staff in export firms are almost

exclusively white males. However, women (usually white) do occupy some middle ranking and specialist roles within export firms. Such gender divisions are fairly typical of the global flower industry as a whole (see the graphic below which shows the leading individuals in the Dutch Flower Group).



Ref: <https://dfg.nl/en/about-us/>

Coloured and black people do increasingly occupy responsible positions such as section manager and team leader. There has been notable transformation within some companies in this respect with training paying dividends in terms of equipping people to step into more important and better remunerated roles.

Harvesting teams are exclusively drawn from Coloured, some of whom have ties with the industry going back generations, and Black communities. The latter in the main include isiXhosa migrants from the Eastern Cape and a small number of people from other African nations. An increasing proportion of harvesters are Black as Coloured folk are looking for other employment opportunities. During our interviews we were told that young people in Coloured communities view the flower industry as a last resort in terms of employment options as the working conditions are harsh and the work relatively poorly paid. Most pickers are female, although there are some teams largely comprised of males.

**Figure 43: Employee Characteristics for 4 Packsheds that also Harvest**

	Firm 1	Firm 2	Firm 3	Firm 4
<b>Male</b>	8	4	21	2
<b>Female</b>	11	6	21	10
<b>Coloured</b>	14	10	34	10
<b>isiXhosa</b>	0	0	0	2
<b>Zimbabwean</b>	4	0	8	0
<b>Seasonal workers</b>	0	5	Up to 60	4

## 6.4 Social and labour standards in the industry

SHP's Ethical Standard Baseline Assessment Outcomes

The SHP includes an ethical standard which been developed using the requirements of the SIZA Code of Conduct, which was developed for the fruit industry. The fruit industry is somewhat more advanced than the flower sector in terms of its history of engagement with assurance programmes and global market access requirements. Therefore, it was decided that implanting 'a step-up' approach would be more realistic and beneficial within the flower industry. To achieve this, the requirements were split into 3 levels:

**Level 1 – “Safe and Legal” / Engaged** – the very minimum requirements that would need to be in place in order to ensure the business operates safely and legally and does not pose a risk to its internal and external stakeholders.

**Level 2 – Foundation / Improver** – the requirements that a working business needs to put in place to observe basic responsible business practices.

**Level 3 - Certified** – the requirements necessary to achieve external certification status and typically would include elements associated with a Management System.

**Figure 44: The Ethical Standard Principles and examples of standards and verifiers**

<b>Principles</b>	<b>Examples of Standard/Verifiers</b>
Management / administrative systems	Policies, procedures, processes. Stated commitment to fair labour practice. Business registration with Unemployment and Workman’s Compensation Fund.
Employment is freely chosen	Workers have right to terminate contract and do not have to hand over deposits/bonds to get work.
Child labour and the employment of young workers	In line with legislation must not employ children and take all measures to prevent children being employed indirectly. Young workers conditions must be legal.
Freedom of Association / communication in the workplace	Must respect workers’ right to freedom of association and collective bargaining. Must be effective way for workers to communicate concerns.
Discrimination and fair treatment	Systems to protect workers from discrimination and abuse. Complaints mechanism in place.
Health and safety	Environment must be safe and hygienic with measure to prevent accidents and injury.
Wages and benefits	Must pay the legislated minimum wage and receive legal minimum benefits.
Hours of work	Working hours must be implemented according to the law with systems in place to record hours of work, breaks, overtime.

A trial assessment has been conducted under the auspices of the SHP. This trial undertook baseline assessments at Level 1. Thirty questions covering the eight principles were applied during each assessment. Sixteen suppliers (7 Tier 2 and 9 Tier 3) were assessed.

The average level of compliance at tier 2 was 57% - measured against basic legal requirement for a business to operate within the framework of South African Legislation. One of the main reasons for the low scores against some of the principles relates to a lack of record keeping as verification is required against each question. An absence of verifiable evidence results in a non-compliance being recorded. Hours of work and Child Labour/Young workers were the principles that produced the best outcomes, whilst most of the other principles hovered around the 50% mark (see figure 46 below). Challenges restraining improved outcomes within Tier 2 include: (i) Lack of knowledge and understanding of ethical practice and the value it holds for sustainable business; (ii) Reluctance to engage because of the additional (perceived)

administrative burden; (ii) Lack of resources to positively engage and embrace change and improvement in working conditions.

	Management / administrative systems	Employment is freely chosen	Child labour and the employment of young workers	Freedom of Association / communication in the workplace	Discrimination and fair treatment	Health and safety	Wages and benefits	Hours of work
Baseline Tier 2 N=7	70	48	80	50	50	50,76	52	76,6

**Figure 45: Average scores against each Principle in baseline assessment of Tier 2 suppliers**

Baseline assessments were also carried out among nine Tier 3 suppliers. Four of these benefitted from support from Tier 2 operations, which made it possible for them to set up their businesses. Five are family/subsistence operations working on a demand/seasonal basis. The latter tend to have mixed businesses, also engaging in activities such as alien clearing and subsistence farming. The overall average level of compliance for the nine operators was significantly below the 50% mark. This is hardly surprising as many Tier 3 operators are largely operating at the subsistence level and are often relatively informal. All work is carried out on a piece wage basis. Payment totals will depend on the value of the species they have picked. There is little in the way of formal record keeping. This does not mean there are no systems in place but when it comes to measuring compliance against principles, for example, whether or not the legal minimum wage is paid – this cannot be verified if a record of hours of work is not kept. The cost of formalising systems is high and those at subsistence level operation made it clear that this was not feasible. A significant gap at this level was the level of health and safety training. Whilst standards are low and the businesses marginal, the contribution that such work makes to sustaining livelihoods in high unemployment areas should not be discounted. An awareness DVD has been developed via the SHP to build the capacity/awareness of operations at tiers 2 and 3 regarding environmental and social and labour principles.

#### Interview and Focus Group data gathered from workers in the industry

The mainstream harvesting sector is relatively informal with many workers rarely receiving benefits (such as sick leave, maternity pay, UIF), a guaranteed minimum wage or regular work. Harvesters we interviewed (some of whom have worked in the industry for two decades or more) explained the challenges they have faced. Piece rates are the dominant form of payments in this sector. For some individual workers this can work very well, especially when picking high value product such as silver brunia. In one case pickers stated that they could earn R6 a bunch (ten stems) for silver brunia and thus earn sums of R500+ in one day. Other pickers stated that they could earn R2 per bunch for silver brunia from a different contractor. Thus, there can be significant variations between employers in terms of pay rates. Typical prices for silver brunia paid by exporters at the time of interviews was around R40-45 per bunch.

Indicating that the ‘white gold rush’ was benefitting intermediaries far more than harvesters.

However, for many workers it can be difficult to scrape together a day rate near to the minimum wage. These challenges would be especially acute in areas with high levels of aliens, old *veld*, areas that had been previously harvested and areas affected by drought. Pickers in one area of the Agulhas Plain stated that they had recently worked for 4 days harvesting cones, which were scarce and young, and only earned R172 in total.

**Figure 46: Examples of pay rate variations amongst suppliers**

Supplier Code Name	M	Q	P
Typical day rates	R125-130	R120	R150
Peak rates	R140 a day	R200 a day	R300-400
Lowest rates	R350 per week		

Abuse of workers (verbal, racial, physical and financial) was noted as a common occurrence by groups of pickers with reference to two specific employers. A number of examples of such bad practice were quoted by pickers.

***Indicative quotes:***

‘We don’t have enough money to pay her more as we can’t afford more. Even if she is my trainer as well. It comes down to take it or leave it – in this industry’, *Tier 3 supplier*.

**Assessment Exercise with Harvesters in the *Veld***

As part of this research a pilot study was undertaken with a view to assessing the challenges that individual harvesters face when fulfilling an order. The key objectives of the study were to see whether harvesters were able to earn at least the daily minimum wage whilst harvesting in a sustainable manner. Four days were spent observing harvesters at work.

**Figure 47: Income rates reported for *veld* harvesters**

Picker	Species	Maximum income per day	Minimum income per day	Income on day of assessment
1	Brunia	R150	R60	<b>R85,50</b>
2	Berzelia, Brunia	R150	R100	<b>R145,75</b>
3	Berzelia Ld . coniferum	R150	R100	<b>R134</b>
4	Passerina	Up to R200	R100	<b>R150</b>

The study revealed that daily income levels are marginal in terms of meeting the daily agricultural minimum wage. Two pickers achieved this level or slightly more, whilst one picker was significantly below, earning only R85.50. Of concern is the fact that in two of these cases the harvesters were picking silver brunia, which is the most valuable of *veld* picked flowers and therefore offers good earning opportunities. In one case the



resource available was easily accessible and abundant. Thus, the low levels of income are a reflection of the per-stem rate paid by the picking team manager. In turn this reflects the rate paid to them by the next node within the chain. Other factors influencing earnings on the day included: extent of alien encroachment, age of *veld*, health of *veld* (drought impacts) and whether the bushes had already been harvested. It appears that some *veld* is subject to multiple harvesting episodes in one season. It is clear that harvesters are paid very different rates per stem/bunch in different teams within the industry. One of the teams in this case were paid R25 per bunch of silver brunia (compare with the rates quoted in the previous section). On one day the team leader was not carrying a permit and another team had recently been stopped by CapeNature whilst not in possession of a permit.

Some concerns were observed in terms of sustainability and ethics. Bakkies used for harvesting are prone to immense physical stress, especially when working in mountainous areas. In some cases, the bakkies being used could not be considered safe for transporting workers and large quantities of flowers. In one instance the driver had no driving licence. The costs of owning and maintaining bakkies is a challenge for business owners and cuts deeply into their income. In terms of harvesting, the sample of pickers had little knowledge of the sustainable harvesting code of practice and sought to harvest as much as possible. The need to meet market criteria (for example, stem length) was the main factor ensuring that seed stock was left. It would be sensible to replicate this study on a wider scale in order to see how earning and impacts vary for different species, in different locations and in different seasons.

#### 6.5 Assuring Sustainable Harvesting

Following collaborative work between the Universities of Newcastle and Durham (UK) and the Flower Valley Conservation Trust, a tool for assessing harvesting practices was devised in 2013/14. Previously, adherence to the tenets of the SHP occurred via self-regulation and oversight from the CapeNature inspection process. This approach was insufficiently robust therefore a more scientific method for assessing harvester practices was developed, involving site sampling of areas that have been harvested. This tool now forms part of the SHP's Internal Management System for exporters and distributors of wild *fynbos*. The Internal Management System incorporates two key elements: i) Environmental best practice standards, (ii) Social and labour best practice standards. Progress in implementing the former is outlined below, whilst the social and labour elements are reviewed elsewhere in this report.

The Environmental best practice standards (EBPS) system has been devised and implemented with a view to ensuring that environmental criteria are being met by harvesters. The EBPS is structured around five broad principles which are graded on a scale of 0-100. Thus, the score for each principle can be observed for each harvester as well as their average score across the criteria. The table below details the five principles, their associated standards and provides examples of the verifiers used in the assessment. Full details of the EBPS can be obtained from the Flower Valley Conservation Trust. Each individual assessment is completed via a combination of self-assessment, verification and third-party assessment.

**Figure 48: The Environmental Best Practice Standard**

Principle	Standard	Examples of Verifiers
Conservation of biodiversity	ID Boundaries & management zones	Map property boundaries
	Harvestable spp. assessments	Pickers can identify Endangered, Threatened and Vulnerable species on the property
Sustainable use of fynbos	Manage the impact of harvesting	Pickers will complete SHP in-field training
	Record Keeping	Harvesting records and invoices filed for at least three years
Legislation	CN flora permits	Valid Flora license
	Agreements in place	Signed SHP membership agreement
Management Plan	Management Plan	SIZA 'bolt on' system completed
Research and Monitoring	Field Monitors	Each harvesting team to have one field monitor
	Data sharing	Data sharing agreement signed

Assessments for ten members of the SHP have been undertaken since 2015. Eight of these have undergone two assessments. Figures 49 and 50 provide summaries of the average scores achieved by members. The average overall score for a first assessment is 61% (range 49-71) whilst the average score for a second assessment is 73% (range 63-81). All members improved from their first assessment, which is indicative of the contribution that the process makes to reflection, training and continuous improvement. Members tended to score best on the principles related to Legislation, which is perhaps not surprising as this includes the requirement to possess licences from CapeNature. Research and monitoring had the lowest scores, especially on first assessment. It is not clear what the threshold scores should be for practice to be considered acceptable. Currently, the priorities are that members undergo assessments and that they embark on a journey of continuous improvement.

**Figure 49: Average scores achieved against each Principle for first and second assessments**

	Legislation	Conservation of Biodiversity	Sustainable use of fynbos resources	Management Plan	Research and Monitoring	Average
1st Assessment (n=10)	92	74.5	76.9	49	11.6	60.8
2nd Assessment (n=8)	100	81	79	59	45	73



**Figure 50: Total Scores for each Harvester in first and second assessment**

#	1st Assessment	2 <sup>nd</sup> Assessment
1	60.4	N/A
2	64.2	73.8
3	64.2	N/A
4	60.4	63
5	54.4	77.2
6	71	73
7	57.4	68
8	48.8	75.6
9	65	81
10	62.2	70
11	N/A	N/A
12	N/A	N/A
13	N/A	N/A
<b>Average:</b>	<b>60.8</b>	<b>72.7</b>

Of concern is the fact that not all members of the SHP have undergone a EBPS assessment as yet. In order for any supply chain to be considered as ‘sustainable’ it should be the case that all suppliers at the very least have completed the EBPS, can demonstrate that they meet minimum standards and are committed to a journey of continuous improvement. The outcomes of the first round of assessments indicate that there is a need to drive up standards of professionalism within the industry as a whole. It can be argued that the criteria within the assessment should be applied to all harvesters across the industry, not just those who ‘opt in’ at the behest of their market. Challenges going forward include ensuring that mechanisms are in place for

embedding the assessment amongst SHP members and the broader industry. Securing resources to achieve this is an immediate challenge, as is ensuring significant capacity and expertise to undertake the more technical parts of the process, especially in relation to sustainable picking practice. The levels of knowledge and experience required to undertake this robustly should not be under-estimated.

## 7.1 Threats to the wild industry

### Invasive Alien Vegetation

The ongoing rapid encroachment of invasive alien vegetation is widely perceived to be the single biggest threat to the *fynbos* ecosystem, after land transformation and by extension the wild harvesting industry (Bek et al. 2017; Privett 2002; Turpie 2004). Alien invasive plant species, such as Eucalyptus, Port Jackson and Hakea, are spreading rapidly and out-competing indigenous *fynbos* species in many areas. This is causing huge problems for *veld* harvesters who are losing important areas of harvestable land and also finding that the harvesting process is becoming slower and less financially viable in areas where aliens are becoming more prevalent. Whilst some in the industry recognise that wild harvesting inevitably has some impact on wild populations (n.b. others deny this to be the case) there is virtual unanimity that the impact of harvesting practices is dwarfed by the threat of alien encroachment. Although it should be noted that over-harvesting can enable further alien encroachment.

Other negative impacts of aliens include changes to wild fire regimes, which tend to burn faster and hotter than *fynbos veld* fires (Brooks et al. 2004). Such fires can cause tremendous widespread damage and also are less suitable for stimulating new growth of *fynbos*. Instead, it is usually the invasive alien species which grow fastest after fire and thus come to dominate the plant ecosystem as they crowd out new *fynbos* growth.

Alien clearing is widely seen as a priority, although there are different perspectives as to who should be responsible for the cost and organisation. Paying the costs of repeat, intense alien clearing is beyond the means of all but a handful of wealthy landowners. This is problematic for harvesters whose access to appropriate land is diminishing in some areas. The Agulhas Biodiversity Initiative (ABI) alien clearing programme<sup>6</sup> was welcomed by many although some people pointed out that disruptions in the funding cycle undermined the overall effectiveness of the programme. Others complained that the alien clearing teams were unprofessional and caused further damage to the land they clear. A number of respondents indicated that they take on as much alien clearing as they can themselves, often using this activity as a way of keeping their staff busy in quieter times of year. One harvesting contractor also has an alien clearing team which clears aliens on land that is rented for harvesting. This is seen as an important investment for the long-term future of the business.

Several respondents stated that the industry should use Cape Flora SA as a platform to discuss ways of tackling the problem and to lobby for more concerted action from government departments.

### **Indicative Quotes**

'I will go so far that in 20-30 years' time if they don't stop these aliens, then all the lands if they just leave the aliens, is going to be gone'. *Tier 2 supplier.*

'the aliens is making a hundred times more effect on the *fynbos*. Yes we are making an effect on *fynbos* (by harvesting) but aliens is an immense problem'. *Tier 2 supplier.*

'Pine trees, big problem, we have lost more *fynbos* to aliens than what nature is taking...things are out of control they are not doing anything about it. Even Cape Nature's own grounds they cannot control. Aliens is the biggest threat, not flower pickers.' *Tier 1 supplier.*

'The aliens is killing more *fynbos* per year than I can over-harvest in my whole time'. *Tier 3 supplier.*

'The *fynbos* was clean. There was just *fynbos*. The quarry that the gravel came from was full of seeds. 25 years it started right along the tar road. Every year it crept outwards. How much every year *fynbos* is lost... 100% lost. After the fire it jumped. It goes slowly, and after the fire... It's unbelievable. It's more hectares than I harvest. That's lost.' *Tier 3 supplier.*

'if we don't jump in and convince the landowners (to clear aliens), then there's not going to be *fynbos* left.' *Tier3 supplier.*

' the wetlands species (of *fynbos* are under threat), because the aliens creep up in the wetlands first. Where it's wet, they love to grow.' *Tier 3 supplier.*

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<sup>6</sup> The ABI project is largely funded by the Department of Environmental affairs, donors and the landowners themselves who co-invest in the clearing activities.

'...on their grounds the aliens is rampant there, it goes ballistic and of course with wind and pollination...that s how they get back there, so it is a continuous thing', *Tier 3 supplier*.

#### Sustainable harvesting

Concerns about the environmental impacts of harvesting from natural *veld* are nothing new. Middelmann's account of the history of the industry documents several occasions when controversy about wild harvesting flared up. For example, as the industry grew in 1950s, 60s and 70s press articles would intermittently crop up making statements such as, "Indigenous Cape Flora devastated for foreign exchange", 'tons of indigenous flora, particularly Proteas and Leucodendrons are being stripped from the *veld* and pickers will not let up until there is nothing left' (in Middelmann 2012, p.51). The overharvesting debate also became intertwined with the inequities of apartheid in the international media during the 1980s triggered by the journal TRAFFIC International Bulletin. An article stated 'South Africa – an entire Floral Kingdom threatened with extinction', detailed how the 'ruling classes' were sending Coloured workers into the mountains to 'gather flowers in exchange for subsistence wages'. Furthermore, 'an extremely valuable part of the Earth's floral heritage is threatened with destruction. A massive campaign is needed...to discourage the import of South African flowers' (in Middelmann 2012, p.79). Middelmann also records that Everlastings were 'probably over-picked' (2012, p.123).

In the early 2000s steps were taken to formalise sustainable harvesting practices and to ensure that these were based more squarely upon scientific principles rather than the observations of individual practitioners (see Van Deventer et al. 2017 for a summary of these principles). Thus, the Sustainable Harvesting Programme led by the Flower Valley Conservation Trust came into existence (see Bek, Binns and Nel 2012 for further details on the initiation of the SHP). The SHP has become firmly established within the institutional matrix of the Cape Flora industry, with representation within Cape Flora SA, the establishment of a wild harvesting committee and the embedding of the SHP's principles into CapeNature's regulations. Some retailers require their suppliers to be members of the SHP and expect that the principles which extend into the ethical realm will be applied within the supply chain.

However, sustainable harvesting remains a controversial subject. Our research revealed a full spectrum of views offered by different stakeholders within the industry. In sum these views include the following:

- i) Any commercial scale harvesting in the wild is negative for the natural ecosystem and likely to be unsustainable in the long term.
- ii) Commercial scale harvesting need not be unsustainable if sensible practices are followed.
- iii) No harvester will act unsustainably as they are risking their own future livelihood.
- iv) Harvesters will act unsustainably in order to maximise their income today.
- v) Harvesters will act unsustainably if they under pressure to fulfil orders.
- vi) Unsustainable harvesting occurs within the industry but it is others who are doing it.

- vii) Harvesting sustainably is essential for the long-term survival of the industry.
- viii) The SHP is a crucial tool for guiding good practice and raising awareness of the need for sustainable harvesting.
- ix) The SHP's guidelines are too broad and do not apply to all species in all locations.
- x) Most of the SHP's guidelines are inappropriate.
- xi) CapeNature's permitting system does very little to ensure that sustainable harvesting occurs.
- xii) Commitment to the SHP by industry players indicates that sustainable harvesting is occurring.
- xiii) Commitment to the SHP is no guarantee of good harvesting practice due to a lack of a widely applied assurance process.

The vast majority of stakeholders agreed that harvesting sustainably is vital for the long term future of the industry. However, there is considerable disagreement about the practices that constitute sustainable harvesting and whose role it is to ensure that it is taking place. For many self-regulation and local knowledge is more important than science and external governance. Interestingly some industry players are quick to state that others do not act sustainably whilst indicating that they themselves do. Sustainable harvesting is a sensitive topic and several interviewees were vehement that negative images of the industry's impacts should not be expressed in the public domain as this could have negative impacts in certain markets.

Increasingly stringent market criteria (in terms of stem length/straightness and appearance of foliage) are seen as promoting sustainable practices as stems which do not meet the requirements should not be harvested. Therefore, the drive for quality in the marketplace, facilitated in part by the development of the bouquet market and direct sales to retailers, is an important contributor to more sustainable practices. Higher standards required in domestic markets are also helping to improve picking practices. Conversely markets which accept lower grade product, such as street selling, remain a threat. Whilst most pack-sheds report that harvesting standards are high some picking teams are less diligent and have high reject levels at pack-sheds. Sometimes these rejects are sold into less fussy, lower value markets, on other occasions they are composted or put into refuse. Clearly such rejects are an unnecessary waste of natural resources.

Market practices can militate against sustainable harvesting in the following ways. Firstly, the sheer volumes required to service some markets (such as the UK retailers) are seen to put pressure upon the resource in the *veld*. People involved in other supply chains state that they struggle to procure sufficient quantities due to the volumes being sent through to the UK. As a result, more marginal areas may be harvested in order to meet demand. They also state the relatively low price paid by the UK market acts as a depressant on the broader market value of greens, which results in greater volumes being taken off to maintain economic viability. Secondly, the tendency for orders to be given at short notice (even the same day) can result in undue pressure to harvest intensely and on easily accessible lands. The 'blame' for short lead times on orders may not always lay with the final customer, but can result from 1<sup>st</sup> or 2<sup>nd</sup> Tier

packsheds being short for a large order and placing last minute orders with their suppliers. Ultimately, these practices do not support sustainable harvesting.

The economics of sustainable harvesting have also been questioned – is it possible to apply the principles of sustainable harvesting (which require leaving stems on a bush) and still be able to: (i) fulfil orders in the available time, (ii) to harvest sufficient stems to pay minimum wages and meet other legal requirements? The pilot study referred to in Section 6.4 of this report indicates that it can very difficult for harvesters to meet economic and environmental objectives simultaneously.

As outlined elsewhere in this report, some harvesters are able to earn relatively good wages. However, others state that certain variables impinge on their ability to earn reasonable amounts of money. These variables include: high levels of alien infestation, quantity of land the team can access, old *veld*, recently burned *veld* and areas that have already been (over)picked. In these circumstances harvesters may struggle to find enough stems to harvest which leads to the harvesting of whatever is available, even if this means taking too many stems from individual plants or taking stems from a plant that has already been harvested heavily. Therefore, harvesters may harvest in ways that may be deemed unsustainable in order to ensure that they earn a living for that day. Some harvesters described how they have been sent into poorly stocked *veld* and not been able to find sufficient flowers to earn anywhere near the minimum wage. This can be linked to the harvesting team owners lack of access to sufficient land. This can result from shortages of lands in some areas. Also, some team owners have better, more favourable connections with landowners than others.

The dry industry is considered to be a problem for certain species as high levels of stems are removed. Quality is less of an issue than with the fresh industry, as product is modified by dying and shorter stems can be used, therefore a greater proportion of stems are liable to be harvested. Different parts of the plant are also used, which can increase impacts upon the plant's health. Furthermore, areas that have been previously harvested for the fresh industry may be harvested later in the season for the dry market thereby putting more pressure on the resource base. Repeat harvesting of the same land by different picking teams is a problem (Ostrom 1999), both in terms of maintaining reasonably levels of pressure on the natural resource and in terms of identifying accountability for poor practice.

Concerns about the impacts of harvesting are leading to an increasing number of landowners not allowing harvesting on their land or only allowing teams that they trust. Landowners are not only concerned about over-harvesting but also issues such as the driving of bakkies through the *veld* and the effects of trampling and littering.

Following collaborative work between the Universities of Newcastle and Durham (UK) and the Flower Valley Conservation Trust, an APP to assist harvesters and conservation authorities with monitoring and evaluation of *fynbos* picking has been developed. This APP also serves as an awareness tool showing the description and status of the top 41 species harvested in the wild cut-flower industry. This tool has the capacity to be use for exporters, retailers, customers and outdoor educational groups, to know which species are moving through the supply chain. The monitoring

component of the App will provide assurance of sustainable practice through third party verifications.

### ***Indicative quotes***

'All our suppliers must be sustainable, do the course and do the sustainable licences and everything must be in place', *Tier 2 supplier*.

'During times where the pickers would struggle to find flowers, they would work from early morning hours (7h00) till very late in the evening. Pickers would be encouraged to work full days, but they received poor wages, and possibly or certainly be made to harvest unsustainably', *report on focus group with Tier 3 harvesters*.

'...some farms have two different pickers with licences. That is a huge problem. So, one goes in and picks stoebe and another with rights comes in and picks it there too. They destroy it. I was on a farm last week where salignum grows. On that farm I found only four female plants. Only four. I told that guy that if a fire breaks out here there will be nothing on your farm. No seeds at all...The dried flower is a huge problem, especially for the female plants', *Tier 2 supplier*.

'We've experienced them (flower pickers) before again they don't care about the *fynbos* they're after the money they can make out of it. Those areas are extremely sensitive. So we've had them going up in their 4x4's to go and pick the stuff. That track once you've been over it two or three times, take years for that vegetation to recover. Before it's had a chance to recover, it will have eroded into donga's. We're not crazy about flower pickers' *landowner*.

'They cut it every year. It just resprouts. I thought, "After five years of no leaves and no... It must die." It just go on and on. If you over-harvest it, you can't even harvest 20% of the bush, because there's only some of the stems with berries on. There's no way you can over-harvest the *Brunia*', *Tier 3 supplier*.

'There's always seed in the land. The only thing that they can really destroy is things like proteas because they pick everything and there is no seed left. But something like an Erica and a laniginosa, I mean you can pick those bushes dead and those seeds are lying there and there's the next fire coming. It comes back. So, brunias have resprouted, so you cannot over pick it. It just comes back even better. I think there's more in the dry business. It's probably more dangerous for picking, over picking. Because they pick a lot of the protea buds and then there's no seeds left on the bush and it's gone,' *Tier 2 supplier*.

'I told (a supplier) if the rejects are more than 10% then I am not going to buy anymore. The reason for that is that we are busy destroying the *fynbos*. Sometimes we order 50,000 stems and the supplier drops it off and we can only use 30,000. So 20,000 we have to throw away. That happens every single day', *Tier 2 supplier*.

'I don't know...who is deciding what is sustainable. I am doing sustainable on my farms, I don't know they are sustainable, the Flower Valley is not sustainable as they are bankrupt already. I cannot see them as sustainable because sustainable means everything must be sustainable', *Tier 3 supplier*.

'you can see the impact that a harvest deserves on the ground, and the systems that we currently have in place, it's probably not adequate in really calling it sustainable harvesting. In my opinion, I don't think we're harvesting really sustainable at this point of time', *conservation services*.

'As a conservationist, I am not happy with that (the volumes being harvested). If it is small amounts yes, but not in large volumes', *conservation services*.

'It's very sad. That, I must say, is a lot of this harvesters that's small, and they've got no choice. They actually must go and harvest something', *Tier 3 supplier*.

'I've got one property with a permit on, so anywhere where they stop me you know I come from that one. You know what I mean?', *Tier 2 supplier*.

'The team bosses are driven by the running costs of their operations and making a profit not by conserving a resource', *Tier 3 supplier*.

### Poaching

There is evidence that poaching (unpermitted harvesting of species from land without the owner's permission) is taking place. It is especially prevalent in the case of high value species such as Silver Brunia, which can attract prices as high as R5 a stem (in 2009 the price was 80 cents). Harvesters revealed how they had been told to pick silver brunia in unauthorised locations, even at night. One harvester recounted how an individual was a serial offender and had even started by-passing the pack-sheds and delivered poached brunia straight to exporters at the airport. This practice was stopped when two pack-shed owners intervened. Other stakeholders, including landowners and CapeNature staff stated that they were aware of poaching occurring. The problem for CapeNature is a lack of resources to catch people in the act. Whilst they may suspect that a bakkie-load of product has been obtained illegally this is hard to prove if a permit listing the species is produced, even though that permit refers to land other than that where the stems originated from.

Good prices, fuelled by low availability, and weaknesses in the application of the permitting system were identified as facilitators of poaching. The majority of pack-shed owners were adamant that they themselves would not accept product that believed had been poached, although some expressed the view that some of their competitors tend not to ask questions. One of the stated impacts of poaching is a tendency to legally harvest silver brunia whilst it is younger than would normally be the case. High demand definitely places more pressure on silver brunia. The impacts of this upon the sustainability of the species is debated vigorously by different stakeholders. Many in the industry believe that it is robust plant that can withstand and recover quickly from high levels of harvesting.

Blatant encroachment to access high value species is one version of poaching, another is the common practice of 'picking across the fence'. This occurs when harvesters pick plants that are just beyond the boundaries of the area for which they have a permit. This can be a cynical act to access easily available plants or a result of poor boundary marking.

There is a case for tighter regulation and trackability systems being imposed for high-risk species such as Silver Brunia. For example, evidence of sourcing (such as

harvesting team GPS records and digital images) and permits could be made mandatory upstream within the value chain.

### **Indicative quotes**

'Now people are coming and stealing my stuff', *Tier 2 supplier*.

'We've got a lot of poaching in our area...sometimes our neighbours they do steal...because these people are our neighbours it is difficult to say they are stealing from you', *Tier 3 supplier*.

'...they (pack-sheds) just take it, because it is good money...they will take stolen goods from somebody else...they will all do it because it is good money!', *Tier 3 supplier*.

'What I have heard is that happens is that those uneducated poacher harvesters they sell it to a legal person who has a permit. He then transports it on his permit to other people who then export it.' *Conservation services*.

'Poaching does happen. But you have got to be there at the right place and the right time, but yeah it does happen', *Conservation services*.

'...like the silver Brunia that is getting poached, same story. Why is it getting poached? Do you think it will get poached if there is no buyers for it? It's happening! I saw it with my own eyes. Not in this area, but I saw it in Stanford...There's guys coming in with small bakkies and with little wheelbarrows and donkey carts, they're coming in selling flowers. And I thought..eish man! Yah, where's their permit? No f\*\*king permit!', *Tier 3 supplier*.

'I cannot give a number but it is a significant amount', *Conservation services*.

'I've heard that in Napier and Bredasdorp... the *Brunia*, of course, it's a big thing. We've had poaching, but not that much', *Tier 3 Supplier*.

'you do get poaching still in silver brunia at that time of year because it is the *white gold*, I am sure you have heard of that. Big money just for one or two bunches of it, you do get people that steal that....if they don't catch them in the *veld* you can do nothing', *Tier 1 supplier*.

'It (Silver Brunia) has a good return and its valuable enough for people to steal it...Every year. We have a very good idea who (steals it). It's the system doesn't really allow ... for justice to take its course. You report it to the police station this person is stealing flowers, it sounds ridiculous but he might have stolen R20000 worth of flowers but the value assigned to flowers in someone's head is just not there you know. It's not treated a lot of the time, these are reasonably poor people', *landowner/cultivator*.

### Fire

Fire is recognised to be an important component of the long term management of *fynbos* ecosystems. Most of those interviewed recognise that fire regimes are important for the regeneration of *fynbos* plants. A number of respondents, mainly harvesters, stated that fire is a problem for the sustainability of their businesses. Fire can be a problem if it occurs too regularly, in particular if it returns before plants have



been able to lay down a full seedbed. Frequent fires also reduce the amount of seasons in which *fynbos* is available for harvesting. Lack of fire is also problematic, with several people reporting that they are unable to access sufficient, good quality *fynbos* as their *veld* is too old. Fire can also be problematic in areas with significant levels of alien infestation as the character of the fire may be different to a typical '*fynbos* fire' as alien vegetation tends to burn faster and at higher temperatures. These conditions may not be optimal for the regeneration of *fynbos* plants. Also, alien seeds tend to dominate in the post-fire environment leading to a reduction in the availability of *fynbos* species.

Whilst most recognise the importance of fire, some harvesters stated that fires reduce their access to *fynbos* in the short term, which can be a problem for their business if they are not able to access alternative lands with the same species. For this reason, there are reports that this leads to some people not undertaking planned burns or being keen to put fires out. However, this is not in the longer term interest of their business or the viability of the *fynbos* ecosystem.

**Figure 51: Fire in the Overberg**



Some respondents stated that the timing of managed burns (usually in the winter in order to reduce the risk of fires getting out of control) is problematic as fires in cool damp conditions are not optimal for reproducing *fynbos* populations. It is a concern that some respondents do not have a full understanding of the role of fire in regenerating *fynbos*. One landowning harvester stated that fire is a bad thing for *fynbos* and that he does everything in his power to prevent it.

It is interesting to note that stakeholders further up the supply chain (i.e. landowners/harvesters) were much more likely to view different dimensions of fire regimes as a significant threat to the industry than those further down the supply chain (i.e. exporters).

### **Indicative quotes**

'On the *fynbos* industry, well we're going to have more fires so that immediately means less material', *Conservation services*.

'We are busy with the fire associations. We have to do block burns. It is the only way we can be sustainable in the next 10-15 years', *Tier 2 supplier*.

(*talking about alien infested land*) 'And when the fire comes then Whoosh!!', *Tier 2 supplier*.

'After the fire it (alien infestation levels) jumped. It goes slowly, and after the fire... It's unbelievable! *Tier 3 supplier*.

'Where the aliens is not 100% now, it's 70%. After a fire it will be 100%. There will be nothing.' *Tier 3 supplier*.

'But the frequent fires also that occurring. It will definitely have an impact on the *fynbos* species, just because of the frequent fires coming through and alien infestation that pops up after that', Conservation Services.

'I think there isn't enough of the fires actually happening', Tier 2 supplier.

'The problem is this fire is bringing things in that the *fynbos* was keeping out but now it's easy because all the alien plants is growing faster than our *fynbos*. It's the fire I'm telling you I'm against fires hey because the fire is taking the *fynbos* over', Tier 3 supplier.

'The most the biggest problem with silver Brunia is *veld* fires', Tier 3 supplier.

'People think fire is good for the *Fynbos*, it is bad, very- very bad. Why they want it young? I don't know. They say listen here "the plants will be nice for you". I say, no your f\*\*king mad. I want old field. Because number one, every year, I am picking out what I want. Like fruit trees, I am pruning it, you understand? So the new trees, every year there is new growth, you know!? It's taken an old field, it is taken 10 years to make it brand new. Then you get new plants. Now you burn it down you get everything new. And then you get your problems with unsustainable', Tier 3 supplier.

#### Broadcast Sowing

Broadcast sowing is a widespread but also controversial practice (see Treunicht 2010 for a detailed analysis of the impacts of broadcast sowing upon *fynbos* ecosystems). Broadcast sowing involves the addition of the seed of a single species into an area of *veld*, with the aim of producing dense stands of that species. The practice differs from cultivation in terms of the extent to which the soil is prepared. Formal cultivation requires breaking the soil, usually to a significant depth whereas broadcast sowing involves adding seed to lightly or untilled soil after a burn. Landowners and others within the industry view it as a sensible economic strategy which ensures that sufficient quantities of key species are available within the landscape. This can be achieved without the high costs of cultivation and with less impact upon the natural ecosystem as seedbanks are maintained for at least one fire cycle. Focusing harvesting upon these augmented populations also takes pressure away from naturally occurring populations. Harvesting stands of broadcast sown plants is much more efficient as the plants are dense and more easily accessible for pickers, therefore more stems can be harvested per day. Given the low economic value of greens it can be argued that broadcast sowing is vital for maintaining harvesters' overall financial viability.

Treunicht (2010) research revealed that more than a dozen species have been augmented on the Agulhas Plain with just over 60% of instances of broadcast sowing involving either *Protea compacta* or *Leucodendron platyspermum*. It was estimated that just under 2000Ha of the Agulhas Plain had been subject to broadcast sowing. It is likely that the area under broadcast sowing within the CFR has expanded significantly in the last decade as a number of our respondents described their ongoing plans to augment key species and also to experiment with broadcast sowing of a wider

range of species. Their justification for expanding these practices relates to shortages of accessible, appropriate species in the *veld* and the economics of harvesting from dense stands of a single species, whereby more stems can be picked in a shorter space of time. Quality is also considered to be better from broadcast sown product. However, there is no data available on the extent to which broadcast sowing is occurring, where it is occurring or which species are being augmented. Whilst *Leucodendron platyspermum* is the most commonly augmented species, individual producers do seek to spread seed of other species such *Protea repens* and *Silver brunia*. The latter does not reproduce well from seed, although anecdotal evidence suggests that people are upping their efforts to produce it due to the escalating value.

**Figure 52: A view of broadcast sown greens in the landscape.**



Conservationists express concern about broadcast sowing as they consider it to be a form of cultivation by the back door which effectively creates virtual monocultures in the *veld*. Whilst the

practice maintains pre-existing seedbeds there is no doubt that the richness of the ecosystem is reduced in the long term in broadcast sown areas. CapeNature's ordinance do not offer a clear ruling on the status of the practice in terms of precisely what extent of soil disturbance requires regulation. The reality seems to be that landowners act quickly after fire, often disturbing the soil without permissions from the relevant state agencies whilst effectively changing the land use from virgin *veld* to a form of cultivated land. State actors we interviewed indicated that they lack the resources to be able to check exactly what is happening to landscapes in the aftermath of fire. Once fire has swept through a landscape it can be difficult to establish whether the land was previously virgin or had been subjected to some level of cultivation. Therefore, landscapes are being changed without oversight and regulation from the relevant authorities. It was interesting to note that during interviews stakeholders would often refer to broadcast sowing as either cultivated or wild product. This slippage in the use of terminology is indicative of the imprecise status of broadcast sowing and the differing levels of preparation that underpin its production – sometimes a scattering of extra seed within an area and in other cases a much more planned and concerted effort involving use of machinery and added inputs.

**Figure 53: Google satellite image of broadcast sown greens**



The status of broadcast sown populations in terms of CapeNature's permitting system and sustainable harvesting is nebulous. Is there a need to permit the harvesting of augmented species

given that they are not natural populations? Should plants that have been artificially added to the landscape be subject to the principles of sustainable harvesting? Does it matter if they are 'over'-harvested? Should landowners be required to declare details of the species and land areas which have been broadcast sown? These are open questions which require discussion and agreement in terms of improved oversight.

This lack of clarity has extended into the domain of levies on exported *fynbos*. Levies have been payable on the export of cultivated product or some time but wild has only been included more recently. As broadcast sown product has no official status it was not subject to levies. Some observers consider this to be wrong as the product does not result from naturally occurring populations and has been facilitated by activities that should be classified as cultivation. However, as no clear definitions have been achieved and no regulatory stance taken broadcast sowing occupied a grey area avoiding intervention on environmental grounds and export levies.

### ***Indicative quotes***

'With the broadcast sowing, that will have a big impact on just how the ecosystems change and the landscape change basically', *Conservation Services*.

'it's a big problem if you look at natural *fynbos* dispersal and how it should work', *Conservation Services*.

'But like I said, broadcast sowing, I'm not sure what the rules are', *Conservation Services*.

'You won't know if somebody is broadcasting, it just happens', *Conservation Services*.

'So for me I would think less time spend looking for the actual species because now you just walking in rows and you are harvesting because it is all planted there for you. You can actually double your turnover because you making more by cultivating. You don't have to go and search for it in the *veld* where it grows randomly. So you have

more plants to harvest, less time searching, more time to harvest', *Conservation Services*.

'even here I've cultivated 2 hectares of silver Brunia. I'm one of the few people that got silver Brunia started underneath cultivating, but silver Brunia is one of my biggest plants - you know it's a big seller', *Tier 3 supplier*.

'The thing is your production, your people, they pick like this, and they hardly come by 1000 stems a day, like this. But if they are in rows, they pick up to 3000 stems a day', *Tier 2 supplier*.

'In seeding time I've got a mixture of silver Brunia seed and charcoal that I'm using... You won't see the seeds its only charcoal and I'm spreading it out almost like 10-15 kilograms per square meter. So it's very heavily spread out. I've got a machine that's compacting the material, the seeds and charcoal into the ground. And it taking like 3 years up to 5 years to show you the seed is working, that the seed is bringing up a plant', *Tier 2 supplier*.

'The law must state what are the consequences from an environmental point of view. It is so broad. It requires a definition. The reason I am raising is that as part of the levy system there was an attempt to define', *Conservation agency*.

'Someone, somewhere needs to pin down. Either you classify that cultivation or wild. That needs to be an agreement in the industry. But they cannot find a place for it to sit. There is no legislation to provide a middle way between wild and cultivated. It is fair to say there is confusion. The industry is happy to sit with that confusion', *Conservation agency*.

'But as no one is interested in monitoring broadcast sowing you get a grey area. I think that is where it becomes dangerous. Historically, without any use of implements you just sowed seed after fire. People are putting their tractor in and ploughing', *Conservation agency*.

## **8.1 Perceptions of organisations involved in Cape Flora Industry**

Cape Flora SA

Most industry stakeholders see the value of having an overarching industry body, however there is less clarity as to the precise nature of the benefits that are achieved. Currently, the main value is seen to be that of providing a forum where specific challenges or problems can be discussed so that the industry can be represented in external forums. The benefits of Cape Flora SA as a marketing body are largely disputed and a small number of respondents expressed dissatisfaction at paying the statutory levy. Some exporters feel that it plays a role in broadly raising the profile of Cape Flora but that this role is not sufficiently exploited. In essence there are currently ample opportunities to sell within the global market (though this could change rapidly

in the event of a cyclical economic downturn) and the individual exporters are able to exploit these opportunities themselves. It can be hypothesised that with a more concerted joined up effort the market could be grown considerably. The rapidity with which the UK market has grown in the last decade or so is indicative of the levels of demand that can be created if key importers and retailers are brought on board. There is every reason to assume that large markets could be created in other parts of the world. One exporter stated that they had been approached to visit Russia on a trade mission and that the potential volumes being talked about were very large and way beyond the capacity of his firm to supply. Indeed, the inability to supply further large markets is probably the main limiting factor for the industry as a whole. Currently, the majority of exporters appear to be in a comfort zone of growth with good prices available for some key products. However, stepping up to significantly shift the scale of production in order to supply mass markets would require major investments, changes in business model and an appetite for risk amongst growers and pack-sheds. From a conservation perspective there are doubts as to whether the natural environment could sustain higher offtake levels, especially in the context of alien encroachment and climatic variations.

More forward thinking respondents stated that Cape Flora SA can play important roles in the future by: (i) developing concepts such as the Geographical Indication for Cape Flora and ensuring this is marketed in a unified manner; (ii) developing standards of consistency for Cape products to achieve parity with commodities such as fruit and wine; (iii) providing data and market reports; (iv) ensuring that the industry is aware of international trends within spheres such as sustainability and traceability.

The enduring fragmentation of the industry is seen as the single biggest obstacle to Cape Flora SA being able to expand its role significantly. The 'everyman for himself' mind set which pervades definitely precludes more collaborative working and the cracking of bigger markets. Essentially, the main players are able to secure good markets, which themselves are often fragmented, and grow their businesses. There is little incentive for many to consider alternative ways of working. However, external factors such as global trade challenges, sustainability standards, and environmental pressures may cause a need for more collaboration and a joint approach.

### ***Indicative quotes***

'They do (nothing)!!! They want to deduct every month money from your boxes. If you put cultivated on your box, they take a few rand. I'm telling you – I told the man "take fuck all from my boxes, because you've done nothing for me!!" They told me they do the work to help the industry. I said, "When I started cultivating my flowers you didn't come and help me.' *Tier 2 supplier*

'At the end of it they say when it goes good with the industry there is nobody at the AGM and when it goes shit (bad) everybody is there so now it goes good so nobody is there. It goes good we don't need Cape Flora', *Tier 2 supplier*.

Interviewer: 'Can Cape FloraSA play an important role in the industry?' Respondent: I believe so, at the moment they not so', *Tier 2 supplier*.

'Is the mistrust between the producers and the exporters. The traditional mistrust. And whether or not the industry could set up something like that and comfortably work from one platform. I don't know if it could work, I don't know. It doesn't seem to have worked sustainably in the past, so. Although, things change, people change', *Tier 1 supplier*.

'Sometimes when everything is going good, people think you don't need it, but in this, there's always stuff coming up that industry important. Important, for the industry and then must be handled by the industry, or industry body', *Tier 1 supplier*.

'You don't have an industry standard. We've got an industry guideline, but PP is – Cape Flora South Africa, our industry board, is just giving it, but there's no stamp or – if you pack in a SAFEC box, that is the industry mutual box, there's no control or measurement it went through a certain process, it was cooled, the field it was taken out, no heat spots, it was on water, nothing. Like when you get to the wine industry or to the fruit industry, there's the stamp of that. It's gone through certain protocols,' *Tier 1 supplier*.

I don't, I mean I don't know. I would like to say yes but I think no., *Tier 1 supplier*.

'Because of, because of what, because of this fragmented way that this business works and because the nature of the people that we deal with overseas. The flower business is quite complicated, it's not like the fruit business. Our varieties are much smaller and probably much more so it's just the nature of the beast and it hasn't happened and it's such a shame. So I think that's the reason. it's going to be an interesting task for Cape Flora to somehow get everybody on board. The *velde* harvester the small chap who does make a living out of not much to the trader, to the local trader and try and formalise something. I think we're very, very unique', *Tier 1 supplier*.

'What value do you think Cape Flora SA as an organisation brings to the industry? Aagh not much. The thing is it is good to have the organisation...But I feel every business thing must have a (mouthpiece) somebody that can talk for you so that you can lay a problem and someone can .. we cannot all stand alone', *Tier 2 supplier*.

So this geographical indicator, this GI, the Cape Flora thing they're pushing is there any real use for the industry?

I think they are wasting their time.', *Tier 2 supplier*.

#### CapeNature

CapeNature is not seen to have much impact. From the industry perspective it plays a role as the licensee which enables people to trade. Beyond that it is not really seen as having much meaningful regulatory impact. Conservation stakeholders and CapeNature employees express frustration at the lack of resources they have with which to discharge their duties. The granting of permits is largely seen as a procedural



task which ensures that Red listed species are not harvested. Whilst officers do visit sites to inspect the resources available for harvesting, they lack the time to undertake the level of inspection necessary to ensure that sufficient resources are available for harvesting to be sustainable. The CapeNature database of permits awarded is not designed for ease of data analysis. Therefore, key reporting information about the extent of harvesting of different species in different locations is not available. The database in its current form does not capture the level of detail which is needed to ensure traceability within supply chains. Various stakeholders expressed concern that whilst few people are fined by CapeNature for malpractice, the people who are charged tend to be those most easily caught rather than those committing the most significant breaches of the regulations. In practice this will mean that someone will be charged for not having their permit in their vehicle, even though they do possess the correct permit. Whereas people who are carrying poached material, for example, will be able to present a permit which has the name of the relevant species on it and they will not be charged as the provenance of the flowers cannot be proven. It was clear during our interviews with several CapeNature field officers that they are passionate about conservation and very knowledgeable but hamstrung by the lack of resources they have at their disposal and the unwieldy-ness of the systems they operate. One of the downsides of the permitting system is that its existence implies a level of regulatory oversight (and therefore assurance) that is not matched by the reality on the ground.

### ***Indicative Quotes***

‘the biggest problem is the Nature Conservation don’t know what’s going on’, *Tier 3 supplier*.

‘Well Nature Conservation here is like it is a myth,’ *Tier 2 supplier*.

#### Flower Valley Conservation Trust

The vast majority of people interviewed are complimentary about the role that the FVCT have played in ensuring that conservation and sustainability have been placed squarely on the industry’s agenda in the last fifteen years. Equally it is clear that individual post-holders (including ex-employees) within FVCT are held in high esteem. However, upon delving further into people’s perceptions it is clear that many people in the industry do not really understand what FVCT is and what role it plays within the institutional matrix of the industry. FVCT’s past commercial roles, firstly, as the main player in the initiation of the sustainable harvesting supply chain into the UK (housing the export pack-shed on the farm) and then continuing to run a harvesting team, still live on in many people’s minds. Indeed, a number of respondents made reference to ‘Flower Valley’ as an ongoing commercial player, several times confusing the NGO with Fynbloem! Such ambiguities are clearly problematic in terms of ensuring clear messaging in relation to further rollout of the SHP. Confusions also exist with regard to FVCT’s role in ABI. The SHP itself is often critiqued in relation to the principles of



sustainable harvesting. Many people in the industry take issue with the 50% precautionary principle and the need for secateurs rather than breaking of branches. Other critiques include: that FVCT is too 'top-heavy' and lacks feet on the ground; that it is too dependent on donors which makes it overly focused upon protectionist conservation objectives.

### ***Indicative quotes***

They've (FVCT) asked us money now way back, but they are really not going to get it... but everything costs money and everybody cuts and everybody cuts corners to stay in the business, there is no free ride.,' Tier 2 supplier.

## **9.1 Conclusions**

The *fynbos* industry is a fascinating economic and cultural phenomenon. Over the decades of its existence it has enjoyed ups, downs and multiple reconfigurations. It has defied the prophets of doom who believed that its earthy and in some ways archaic *modus operandi* could not survive into the technologically driven cut and thrust of the 21<sup>st</sup> Century. Yet, the industry has enjoyed a decade of rapid growth triggered in no small part by the incredible rise of the UK bouquet market which has stimulated high levels of demand and set standards for quality which have spilled out across the industry. The wild sector which many believed was largely dead on its feet has revived albeit in new less informal forms. The dry sector has consolidated as market conditions have toughened with competition from India and China. The industry has been innovative, embraced technology and shifted its product design to meet new needs. The *fynbos* industry is a significant economic player in certain localities creating many jobs and crucially supporting multiple livelihoods.

There are concerns. Industry members are deeply worried about the impacts of alien encroachment and poor fire regimes on the future of wild *fynbos*. Labour costs, in this intensive industry are also a worry. From the perspective of labour, there are concerns about pay rates and working conditions, especially within Tier 3 operations. The unequal share of value within the chain is certainly a concern for managers and labour. Those at the production-end only retain a small fraction of the final retail value. Conservationists express ongoing concern about some production and harvesting practices amid fears that natural ecosystems are being harmed in some locations. Climate change, and its extreme constituents of heavy rains and drought, is a spectre hanging over the landscape, economy and society.

Opportunity abounds for the industry as new markets, both domestic and international open up. The growth of the global middle class is creating new markets all the time. Obviously, there will be ups and downs, with many predicting that a new financial crisis is looming. The uncertain global political landscape, with trade bloc shifts, regulatory changes and currency fluctuations is challenging. In the short term capacity to (sustainably) supply new and expanded markets seems to be the greatest challenge. There is no reason to think that the UK bouquet market is a unique phenomenon.

Other markets will offer similar opportunities. Whether the industry in its current configuration can capture such opportunities is another question. The product itself has potential to be marketed aggressively for its positive credentials. Low water footprint (especially for wild product), low carbon footprints for sea-freighted product and the uniqueness of the product are all strong features which can play to markets, especially more lucrative ones which favour distinctive products. These aspects have not been fully thought through or exploited. However, due attention will need to be given to the broader sustainability impacts of the industry. Awareness of sustainability is growing rapidly within many markets leading to shifts in attitudes, for example towards plastics, happening at unheralded speed. There need be no concern here if the industry more widely commits to the sustainability journey and utilises the tools available.

As the recommendations below highlight, there are steps that can be taken to prepare the industry to mitigate risks and embrace new opportunities. Greater cohesion and professionalism in line with that displayed by associated industries such as fruit and wine, could produce significant dividends for industry role players. Whilst individual firms are thriving currently there are risks which could undermine their success in the medium to long term. Embracing a holistic approach to sustainability, and its three pillars of people, planet and profit, would be a wise course of action.

## **10.1 Recommendations**

- 1) Promote industry cohesion to provide voice on bigger platforms and to improve market development
- 2) Improve data availability and accuracy in order to manage risks and identify opportunities.
- 3) Ensure that industry takes steps to be economically, socially and environmentally sustainable.

### **1) Industry Cohesion**

The industry is renowned for its fragmentation and lack of cohesion. This is a threat to the industry in the medium term and probably limits wider market development. Specific challenges confront the industry which could be dealt with more effectively by unified representation, whilst shifts in agri-commodity supply chain scrutiny globally pose threats to the *status quo*.

- i) Create forum for discussing best-practice and engaging with debates around issues such as: chemicals, technological innovations, reducing carbon and water footprints, trade issues and biodiversity impacts. Establish a stronger brand identity for the industry
- ii) Adopt a more joined-up approach to tackle macro-level threats (such as fire management, alien control, poaching etc).

- iii) Pursue an authentic Geographic Indication Status and target the marketing opportunities it creates.
- iv) Full incorporation of the dry sector into Cape Flora SA.
- v) Undertake ongoing analysis of trends in the commodity sector generally and global cut-flower industry more specifically. Share this intelligence within the industry.

## **2) Improved data collection and sharing**

The industry lags behind its peers amongst globally traded commodities in terms of the quality and quantity of data that it collects, analyses and shares. This impacts negatively upon planning and oversight in terms of markets, socio-economic impact analysis and the natural environment.

### **Actions for Cape Flora SA to consider**

- i) Clarify terminology used for collation of statistics, i.e. disaggregate non-*fynbos* species; define exactly what a 'green' is.
- ii) Use correct species names, not common or group names, for data collection and record-keeping.
- iii) Ensure that all export data is collected accurately and attributed appropriately.
- iv) Collect data on non-export volumes, especially into significant domestic markets.
- v) Collect data on the dry industry.
- vi) Collect data where possible on value as well as volumes.
- vii) Be able to identify and report upon the penetration of certification and standards in the industry (cultivated and wild), i.e. who has SIZA, Global-Gap, SHP membership and progress within those systems.

### **Actions for CapeNature to consider**

Improve data capture and sharing around wild harvesting permits in order to improve traceability within supply chains and in order to be able to make more meaningful assessments of resource stocks.

- i) Use correct species names, not common or group names, for data collection, record-keeping and in all communications.
- ii) Record and report upon total number of wild harvesting permits granted at different geographic scales.
- iii) Record and report upon total number of permits per species
- iv) Be able to pinpoint where harvesting of specific species is occurring
- v) Be able to view number of licences granted per property/block.
- vi) Be able to identify how many teams are harvesting, where they are harvesting and what they are harvesting.
- vii) Consider recording volume limits on permits.

- viii) Put in place monitoring systems to track the impact of harvesting on the veld.

### **3) Mainstream Sustainable Practices within the industry**

Whilst parts of the industry have modernised significantly in the last decade, there remain significant concerns about the industry's social and environmental sustainability. With increasing attention being paid to sustainability in key markets, the industry and its stakeholders would benefit from focusing upon the all-round sustainability of its footprints.

Suggested actions:

- i) Clarify the status of broadcast sown product.
- ii) Support scientific research to inform debates around subjects such as: impacts of harvesting; impacts of harvesting techniques; impacts of climate change; impacts of broadcast sowing etc.
- iii) Disseminate results from such research and influence policy and practice.
- iv) Review the inclusion of alien species within the 'Cape Flora' market.
- v) Rollout use of the *I-Fynbos* App.
- vi) Ensure that the supplier networks of Tier 1 SHP members undergo Social and Environmental Baseline Assessments.
- vii) Promote SHP membership across the industry in order to demonstrate to markets and other stakeholders that sustainable practice is the industry norm.
- viii) Regulatory oversight bodies such as CapeNature, Department of Agriculture, Department of Environment and Development Planning, Department of Environmental Affairs and Department of Labour to be more pro-active in enforcing legislation and mandates. Resources and capacity to be aligned in order to achieve these goals.
- ix) Identify opportunities to promote empowerment within the industry.

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