

# Wildflower harvesting on the Agulhas Plain, South Africa: Challenges in a fragmented industry

Blokker, T. , Bek, D. and Bins, T.

Published version deposited in CURVE June 2016\*

**Original citation & hyperlink:**

Blokker, T. , Bek, D. and Bins, T. (2015) Wildflower harvesting on the Agulhas Plain, South Africa: Challenges in a fragmented industry. South African Journal of Science, volume 111 (11/12).

<http://dx.doi.org/10.17159/sajs.2015/20140160>

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.5/za/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly credited.

\*replaces post-print version deposited October 2015

**CURVE is the Institutional Repository for Coventry University**

<http://curve.coventry.ac.uk/open>

# Wildflower harvesting on the Agulhas Plain, South Africa: Challenges in a fragmented industry

## AUTHORS:

Thijs Blokker<sup>1</sup>

David Bek<sup>2</sup>

Tony Binns<sup>1</sup>

## AFFILIATIONS:

<sup>1</sup>Department of Geography,  
University of Otago, Dunedin,  
New Zealand

<sup>2</sup>Centre for Business in Society,  
Coventry University, Coventry,  
United Kingdom

## CORRESPONDENCE TO:

Thijs Blokker

## EMAIL:

blokkerthijs@gmail.com

## POSTAL ADDRESS:

Department of Geography,  
University of Otago, Leith Walk,  
Dunedin 9017, New Zealand

## DATES:

**Received:** 11 May 2014

**Revised:** 12 Nov. 2014

**Accepted:** 23 Feb. 2015

## KEYWORDS:

Cape Floristic Region;  
sustainability; poverty alleviation;  
conservation; forum; flowers

## HOW TO CITE:

Blokker T, Bek D, Binns T.  
Wildflower harvesting on  
the Agulhas Plain, South  
Africa: Challenges in a  
fragmented industry. *S Afr  
J Sci.* 2015;111(11/12),  
Art. #2014-0160, 7 pages.  
[http://dx.doi.org/10.17159/  
sajs.2015/20140160](http://dx.doi.org/10.17159/sajs.2015/20140160)

South Africa's Agulhas Plain is home to the Cape Floristic Region (CFR), one of the richest floras in the world and the smallest of earth's six plant kingdoms. The indigenous fynbos flora is harvested from the wild and is both exported and sold locally. The conservation value of the CFR, and the need to address deeply entrenched socio-economic disparities and high poverty levels have set a challenging context for the wildflower harvesting industry. The strong competition which exists between producers has resulted in fragmentation of the industry and a breakdown in communication. Using data gathered from interviews and meetings with a range of stakeholders, we argue that the wildflower harvesting industry needs to cooperate and improve communication levels to address the challenges collectively. Without such a collective voice, the sustainability of the industry, the CFR and the livelihoods of disadvantaged communities will be affected. The establishment of a 'Wildflower Harvesting Forum' was explored as a possible solution and is recommended as a sustainable way forward.

## Introduction

The Cape Floristic Region (CFR), or Cape Floral Kingdom, located mainly in South Africa's Western Cape Province, is one of the richest biodiversity hotspots in the world (Figure 1). It is designated as one of earth's six plant kingdoms, but is the only one found within the boundaries of a single country.<sup>1-3</sup> However, the CFR is extremely vulnerable, and is therefore of 'high conservational priority' both within South Africa and also globally.<sup>1,4</sup> Four-fifths of the CFR comprises fynbos (Afrikaans for 'fine bush'), a type of vegetation of which some species, because of their durability, beauty and uniqueness, have proven popular as a harvested product, especially for the main export destinations of the UK and Europe. At the southern tip of Africa lies the Agulhas Plain where the wildflower harvesting industry constitutes an important aspect of the local economy, providing for the livelihoods of farmers, poor households and communities in areas where unemployment is as high as 80%.<sup>4,5</sup>

The wildflower harvesting industry on the Agulhas Plain faces complex pressures to both preserve the conservation value of the CFR, whilst also providing a much-needed means to uplift local livelihoods. A solution promoted by a local non-governmental organisation, the Flower Valley Conservation Trust (FVCT), has been to harvest fynbos in a sustainable way so that the conservation value of the CFR is not jeopardised, while at the same time allowing socio-economic gains to be made. Such practices have been promoted by the FVCT's 'Sustainable Harvesting Programme', which has received support from CapeNature's licensing system. The key premise of this programme is to promote both economic and environmental sustainability primarily through a pragmatic code of conduct and by adhering to this, gain access to the niche bouquet market in the UK, primarily Marks and Spencer. However, the industry remains loosely regulated, and there remains much work to be done before the full environmental and socio-economic benefits of sustainable harvesting are achieved. A sustainable harvesting supply chain now exists, which consists of harvesters who have signed up to the programme and have thus been able to access valuable markets, such as Marks and Spencer in the UK, which supports the tenets of the programme.<sup>6</sup> However, a sizeable mainstream industry continues to operate, supplying an array of less regulated markets.

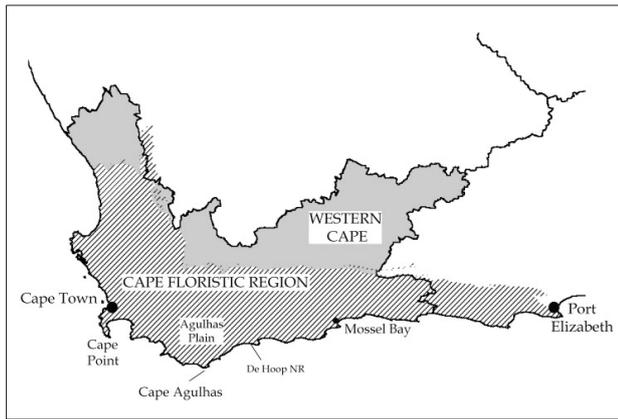
To further complicate the situation, additional challenges facing the industry include a raft of environmental issues such as wildfires, climate change and invasive alien vegetation. A further significant challenge is the highly competitive nature of the industry. This competition exists at both a local and global level. Internationally, the industry is enmeshed within global value chains (GVCs), which has resulted in discrepancies between beneficiaries along the GVC. Discrepancies also exist within the local market in South Africa, and affect local competition, for which pressure within the GVC ultimately reduces prices for producers, whilst still requiring exacting product standards.

Largely as a result of the competitive pressures, the wildflower harvesting industry is very secretive and lacks effective communication. Industry stakeholders such as FVCT and the Protea Producers of South Africa (PPSA) have worked hard to improve interaction within the industry. Key stakeholders believe communication in the currently fragmented industry can be improved by establishing a forum, so that the full potential of enterprises can be unlocked through information sharing and collective bargaining. These benefits have the potential to ensure the future sustainability of the wildflower harvesting industry.

The paper is structured around the following research questions: (1) What are the key challenges facing the wildflower industry on the Agulhas Plain? (2) What institutional changes are needed to overcome these challenges? (3) What role might a wildflower harvesting forum play in furthering the interests of the industry? This paper is of interest to the scientific community as it illustrates the role that social environments play in influencing the implementation of scientifically driven conservation strategies.

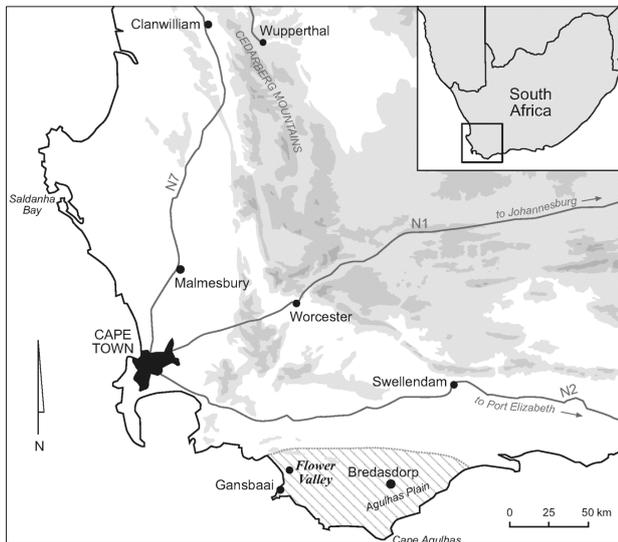
## The Cape Floristic Region and fynbos

The CFR covers an area of less than 90 000 m<sup>2</sup>, of which four-fifths comprises the Cape fynbos (Figure 1).<sup>3,7</sup> With 8600 plant species, of which 5800 are endemic, the CFR is one of the richest ecosystems in the world.<sup>1,2</sup> To put the significance and uniqueness of the CFR into perspective, the rest of the African continent, some 235 times the size of the CFR, only contains three and a half times the number of species that are indigenous to the CFR.<sup>7</sup>



**Figure 1:** The Cape Floristic Region in relation to the Agulhas Plain, Western Cape Province, South Africa.<sup>3</sup>

The Agulhas Plain is situated at the southern tip of Africa, within the Western Cape Province (Figure 2). The Plain comprises 270 000 ha of land within the CFR,<sup>2</sup> and has remarkable plant diversity, with over 100 locally endemic vegetation types. As a result, the Plain is considered to be a high priority for conservation within South Africa, and indeed globally.<sup>1</sup>



**Figure 2:** Map showing the location of the Agulhas Plain.<sup>8</sup>

Owing to South Africa's apartheid legacy, virtually all privately owned land on the Agulhas Plain is owned by white landowners. Those disadvantaged under apartheid mostly inhabit the rural settlements and small towns of the area. Many inhabitants are descendants of the KhoiKhoi people, but since the early 1990s, there has been a significant influx of mainly Xhosa people from the Eastern Cape Province.<sup>4</sup>

The rural areas of the Agulhas Plain are typical of rural South Africa in that they are characterised by marked spatial and social inequality. A noteworthy event occurred on 1 March 2013, when the minimum daily wage for agricultural labourers was increased by 51% from ZAR69 (USD 6.21) to ZAR105 (USD 9.46). This measure was implemented following protests that resulted in hundreds of arrests and at least three deaths.<sup>9,10</sup> The minimum wage increase received mixed reactions, with an understandably positive response from farmworkers, unions and charities.<sup>10</sup> However, many South Africans were sceptical of the possible wide-ranging negative effects, arguing that the increase is unsustainable, and will actually harm agricultural workers if rural enterprises are forced to undergo restructuring.

The wildflower harvesting industry has been in operation for over a century, with initially small amounts exported to Europe.<sup>7</sup> The first people credited with making a substantial living through exporting wildflowers

were the people from Elim (just southwest of Bredasdorp) who, through the help of the German Moravian Church, began to export dried flowers to Germany in 1877. Since then the industry slowly developed into the multimillion rand operation it is today, with over 700 harvesters currently operating within the Western Cape.

Harvesters vary in size, from large-scale land lessees and large landowners to small-scale producers. In addition to wildflower harvesters, there are also a number of cultivators in operation. Although the cultivators were not the main focus of this research, they need to be mentioned as they are responsible for supplying the majority of the 'focal' flowers, which has meant that wildflower harvesters are increasingly focusing on fynbos 'greens'. Cape flora bouquets typically comprise a mixture of 'focal flowers' and 'greens'. Focal flowers are typically high value flowers such as proteas or pincushions, 'greens' are lower value stems which surround the focal flower. Some products are sold locally, but the majority are exported, largely to the UK and Europe, but also to the Middle East, Asia, Africa and the USA.<sup>11</sup>

## Key stakeholders in the Agulhas Plain wildflower harvesting industry

### *Flower Valley Conservation Trust*

Established in 1999, the FVCT focuses on utilising wild flowers commercially to promote both landscape preservation and livelihood development.<sup>4</sup> A number of factors have shaped how FVCT operates as an NGO today, most notably in 2004 when FVCT was split into two separate entities with the business of flower sourcing and sales assigned to a separate newly formed company, Fynsa, a separate legal entity initially operating from a pack shed on Flower Valley Farm (the birthplace of the initiative) before moving to Stanford. Meanwhile, FVCT focused on social and environmental concerns supported by donors.<sup>6</sup>

An agreement between the two ensured that only certified fynbos products were sourced. A link remains between the Flower Valley Farm operations and the Trust, but the finances are kept separate. This link is essential, as running a flower harvesting enterprise provides FVCT with critical insights into the challenges faced by the industry. FVCT has other important links, for example, with CapeNature, which was involved with the development of a sustainable harvesting code of practice, CapeFlora SA (known as the Protea Producers of South Africa until 2014) and the Sustainable Harvesting Committee, the latter representing the key stakeholders involved in the Sustainable Harvesting Programme.

The Sustainable Harvesting Programme is the centrepiece of FVCT's work. This programme is multi-faceted; its core objective is to ensure that wild harvesting adheres to practices that will not threaten the long-term health of the fynbos ecosystem. A Sustainable Harvesting Code of Practice provides guidelines for landowners and harvesting teams.<sup>12</sup> The central tenets of this Code are underpinned by FVCT's pioneering research which led to the production of two key documents – a Vulnerability Index of harvested species<sup>13</sup> and a Resource Base Assessment<sup>14</sup>. The former quantifies the extent to which individual species are at risk from extinction, whilst the latter enables landowners to assess their fynbos stocks and make informed judgements about harvesting levels.

### *CapeNature*

CapeNature is a Western Cape provincial government organisation with the statutory responsibility for biodiversity conservation. CapeNature's vision is to establish a successful 'conservation economy' which will allow for the transformation of biodiversity conservation into a key component of local economic development.<sup>15</sup> CapeNature, therefore has a strong vested interest in the regulation of the wildflower harvesting industry. Harvesters, landowners and pack sheds require licences to engage in the wildflower industry. Licences are issued following an inspection to ensure that no rare or endangered species are harvested, that the resource base is sufficient, and that the *veld* (Afrikaans word for large open space or field) from which they are harvesting is the correct age. In this way, CapeNature has been a key player in the development of the Sustainable Harvesting Programme.

## CapeFlora SA

CapeFlora SA is a non-profit organisation which was established as the PPSA in 2005 with the goal of:

*identifying and addressing the strategic needs of the fynbos and protea industry with the vision to bring about a sustainable increase in the supply and demand for high value/high quality fynbos products to discerning international markets to the benefit of all role players in the South African fynbos industry.*<sup>16</sup>

At present, CapeFlora SA has about 90% representation from the cultivated industry, but only six or seven members from the wildflower harvesters.<sup>16</sup>

## Situating the case study

People living in rural poverty have fewer assets, and are often very dependent on the natural resource base for their livelihoods.<sup>17,18</sup> This reliance has a number of associated risks for both those living in poverty and their surrounding environments. With strong linkages between socio-economic systems and ecological systems, conservation planning and poverty alleviation ideally need to be tackled as a single complex interacting system.<sup>19</sup> Although it has been apparent for a long time that the two issues need to be solved simultaneously, it was not really until the late 1970s that the idea of 'conservation with development' gained momentum. Indeed, the relationship between biodiversity conservation and poverty alleviation is still hotly debated in both policy forums and academia.<sup>18,20-22</sup> A number of sceptics believe that a win-win scenario is wishful thinking,<sup>21,23,24</sup> such that efforts to achieve both objectives might be seen as contradictory – a viewpoint that is frequently reflected in the characteristics and behaviour of stakeholders, power structures and policy jurisdiction, which underpin conservation and poverty alleviation.<sup>21</sup>

The debate has moved forward in recent years with proponents recommending a market-based approach to combined conservation and poverty alleviation programmes. Thus, sustainability is said to be more readily achieved through its three dimensions: environmental, economic and social.<sup>25</sup> Market-based approaches to the conservation/poverty alleviation nexus are increasingly mainstreamed by NGOs, governments, businesses and the research community.<sup>26</sup> However, as Fisher et al.<sup>27</sup> point out, despite the three pillars of sustainable development being seen as inseparable, the economic pillar has often tended to dominate. Evidence, however, suggests that in many instances, poor people benefit least from this approach to biodiversity, and the poor frequently end up bearing most of the costs.<sup>28</sup> Furthermore, Bell and Russell<sup>29</sup> question the potential of market-based mechanisms for environmental management, particularly in developing countries in which regulatory capacity is weak. This observation resonates somewhat with the 'tragedy of the commons' theory, whereby people attempt to maximise profits from a common resource when there is an economic benefit attached to the resource.<sup>30</sup>

In some cases, a market-based approach is associated with products which are part of global value chains (GVCs). According to Gereffi et al.<sup>31(p.79)</sup>:

*Global value chain research and policy work examine the different ways in which global production and distributions systems are integrated, and the possibility for firms in developing countries to enhance their position in global markets.*

A well-documented and often critiqued aspect of GVCs relates to ethical trade issues, especially concerning labour and environmental standards.<sup>32,33</sup> The appalling labour conditions in some developing countries and environmental degradation have been widely publicised through the media, and in reports published by NGOs such as Action Aid, Oxfam and Greenpeace. The latter illustrate how vulnerable people in developing countries and their surrounding environments are exploited within GVCs. Although it is acknowledged that the employment created is important for livelihood improvements, the often precarious nature of the employment can reinforce societal inequalities.<sup>34</sup> It seems that those living in conditions of poverty will take up employment even under

precarious conditions in an attempt to improve their future prospects and uplift their livelihoods. Sadly, it seems likely that exploitation will continue in developing countries whilst 'lead companies' gain more from trade under the current workings of GVCs.<sup>34</sup>

Gereffi et al.<sup>31</sup> argue that the power within the GVCs lies with the lead firms which are predominantly big enterprises, such as supermarket chains. In relation to labour conditions, Raworth<sup>34</sup> has noted that lead firms have the power to push costs and risks onto producers, who in turn pass them onto the weakest link in the chain, namely their employees. This puts stress on the end-line producers and employees who may have to work long hours to cater to these demands. In terms of the environment, there can be detrimental effects caused by overutilisation.

Private sector enterprises in developing countries, which make up the producer component of GVCs, are typically micro, small and medium enterprises. These enterprises in most instances contribute a significant share of employment and income opportunities to the surrounding communities within which they operate. Unfortunately, the full potential of these enterprises often remains unlocked as enterprises frequently operate in isolation, resulting in uncompetitive production patterns and ultimately an approach which is not conducive to innovation.<sup>35</sup>

Within the context of this investigation of wildflower harvesting, it was important to consider the impact of both formal and informal socialising processes and their effects on inter-organisational relationships. Through socialising, evidence suggests that goodwill, mutual trust and respect can develop, allowing for greater levels of cooperation and communication.<sup>36,37</sup> It is widely argued that communication is one of the most important elements in successful inter-firm exchange.<sup>38</sup> Within the highly competitive wildflower harvesting industry, Axelrod's<sup>39</sup> game theory seems relevant, as he observes that 'in situations where each individual has an incentive to be selfish, how can cooperation ever develop?' This observation accords with Hardin's 'tragedy of the commons', and the 'prisoner's dilemma' concept which highlights the importance of trust in building cooperative and communicative relationships.<sup>38,40,41</sup>

## Challenges facing the Agulhas wildflower harvesting industry

In this study, we used a range of qualitative research methods during a 6-week period of field research in February and March 2013. Semi-structured interviews were undertaken with 19 key informants, who were selected based on their association with the wildflower harvesting industry and included small- to large-scale harvesters, pack shed workers, NGO representatives, government officials and botanists. There was also some participant observation, and a detailed analysis of a range of 'grey' literature which included FVCT annual reports, newspaper articles and government and NGO reports. Some of the main challenges currently facing the wildflower harvesting industry on the Agulhas Plain are discussed below.

### *Natural challenges of aliens and wildfire*

Alien plant species are a serious problem facing the wildflower harvesting industry, with 40% of the Agulhas Plain infested to some degree.<sup>1</sup> Alien species displace the fynbos vegetation and exacerbate the existing water shortage problem, leading to a greater risk of wild fires. Fire is an ever-present challenge as it is a critical part of the fynbos life cycle. But if wildfires get out of control they can have devastating impacts, as was the case in 2006 when 47 000 ha of land burned, including one-third of the natural fynbos resource in the region.<sup>42</sup>

Thus far, both the threat of wildfire and aliens have largely been dealt with on a case by case basis, but ideally these challenges should be dealt with strategically on a long-term basis and over a large geographical area. Although some programmes have been implemented in the past to deal with aliens on both private and public land, none to date has been particularly successful, but it is hoped that the Agulhas Biodiversity Initiative Alien Clearing Programme, launched in May 2013, might prove to be more effective. Towards the end of 2012, through the Department of Environmental Affairs' Land User Incentive Scheme, ZAR18 million was awarded to the Agulhas Biodiversity Initiative to undertake alien clearing on private land within the Agulhas Plain.

### Regulatory challenges

CapeNature is the main organisation involved with regulation; however, its capacity to undertake this role is limited. As Respondent 2 commented, '[CapeNature] are basically under-resourced and understaffed to deal with the processing of licences efficiently' and, as a result, opportunities for overharvesting, poaching and picking of illegal species are increased. Each of these issues has a key impact on the overall sustainability and viability of the industry.

Overharvesting, whereby insufficient seed stock is left to ensure reproductive replacement, has been found to be a serious threat to the sustainability of the industry and CFR. The largest contributing factors to overharvesting can be traced back to self-economic interests and a weak regulatory system. In an attempt to make the industry more sustainable, the Sustainable Harvesting Programme has been introduced, whilst CapeNature is also attempting to address inadequacies with the licensing system.

### Poverty alleviation

The sustainable harvesting supply chain has undoubtedly improved local livelihoods by providing year-round employment rather than the part-time employment offered by many of the other industries operating on the Agulhas Plain. Every person interviewed reflected upon the importance of investing in the capacity building of staff. FVCT has a strong track record in this regard, having developed the Sustainable Harvesting Programme, the Agulhas Biodiversity Initiative Alien Clearing Programme, and the Field Monitor Programme.<sup>12</sup> Each of these programmes has significant capacity building and poverty alleviation components.<sup>43</sup> In addition, there are a number of other ways in which the capacity of staff has been enhanced. Respondent 7, for example, set up three small enterprises, each run independently, but under his mentorship. Each of these enterprises has its own *bakkie* (pickup truck) and at least seven employees. He commented, 'They can decide whether or not they pick flowers for me, they can chop wood if there are no flowers, and they can also do work for other people.' Other ways in which the capacity of staff has been enhanced is through health and safety courses, providing help with obtaining drivers' licences and supporting staff in taking various training courses.

Attempting to preserve the conservation value of the CFR while simultaneously alleviating high levels of poverty is of utmost importance within the context of the wildflower harvesting industry. There is a need to make the industry economically viable and sustainable, and the wildflower harvesting industry is making some progress towards these goals. Local poverty is being tackled through the provision of employment, whilst sustainable harvesting reduces negative ecological impacts.

Our respondents indicated that more could be done to alleviate poverty. In the past, initiatives have been put in place to provide opportunities for people from disadvantaged communities. However, Respondent 2 explained that accessing sufficient land to bring in a sustainable income is an increasing challenge, and as a result, 'we are hesitant, as we do not want to set people up for failure or give them false hope'. From a purely conservation viewpoint, the current situation involving wildflower harvesting is problematic as the resource is insufficiently protected. Although not all harvesters have acquired sustainable harvesting accreditation, the numbers seeking to do so are increasing. This is, therefore, an important step for the industry in trying to achieve a 'triple-win scenario', as a key objective of the programme is to promote economic, social and environmental sustainability.<sup>12</sup>

### Competition within the wildflower harvesting industry

Within the wildflower harvesting industry there is intense competition to supply markets as the supply of fynbos currently exceeds demand. While there is competition between wildflower harvesters, the situation is further complicated by the increasing number of cultivators now delivering higher value focal flowers into the market. The expansion of the cultivated industry has led to the wildflower harvesting industry focusing on the gathering of fynbos 'greens'. This shift in focus has occurred

because wildflowers are often damaged by heavy rainfall or sunspots, whilst the market favours carefully cultivated and unblemished flowers.

Other issues currently facing the wildflower harvesting industry include the pressure to plough up land where wild fynbos grows in favour of more profitable land uses such as farming, flower growing, vineyards and fynbos cultivation. These land uses are generally more economically viable; that is, 1 ha of cultivated proteas can generate the equivalent economic return of up to 100 ha of natural *veld*. The continuing profitability of wildflower harvesting is particularly important from a conservation point of view, to prevent large areas of natural fynbos from being ploughed up or turned over to grazing. Global economic trends have also had an impact on the industry, such that during the recent global financial crisis there was increasing competition in the markets from handmade paper and cloth 'flowers' produced in India.

Our interviews indicate that the highly competitive nature of the industry has led to much tension and secrecy as harvesters are desperate to hold onto existing markets. This context makes it very difficult for new entrants, particularly smaller harvesters, to enter the industry. As a result of this culture of rivalry, there is an absence of data relating to the industry. In contrast, the vast majority of fruit producers are members of Hortgro, and are required to submit annual statistical returns which enable industry-wide strategic planning and lobbying to take place. However, the wildflower industry is literally an unknown quantity, with only partial statistics available.

Conradie and Knoesen<sup>43(p.3)</sup> note with frustration that 'due to the fierce competition in the industry arising from limited market access, there is no complete producer list'. As a result, the producers are open to manipulation by other players in the supply chain. One respondent explained that, 'a major problem has always been with the 'mafia' pack sheds, they have too much power'. The pack sheds dictate the price and the required quality of fynbos received. As a result, the harvesters have become 'serious price takers', and often have no say in what their product is worth'. Therefore, they have no bargaining power. 'If I don't supply someone else will do it'. Only one harvester interviewed looked beyond the power of the pack sheds, commenting that, 'the biggest threat is the supermarkets; they dictate the price, how many stems in a bunch, what flowers they want and when they want them'.

In 2013 the UK importers made a strategic decision to place their orders through Fynbloem rather than Fynsa. Thus, the majority of exports to the UK are routed via the Fynbloem pack shed at Riviersonderend where bouquets are made before they are sent to MM Flowers Ltd in the UK which finalises the bouquet packaging and organises distribution to the retailers. Other supply chains, such as those for the dried flower market, also involve pack sheds and agents for the markets. The involvement of such intermediaries has left harvesters feeling aggrieved that they are not benefitting in an economically commensurate way. According to Respondent 16, 'the mark-up is ridiculous; some of these bunches go for ZAR150 (USD 14.93) in the UK, while here we are only getting 10 or 40 cents [ZAR0.10 or ZAR0.40] for a stem'.

Whilst we detected a power imbalance between harvesters and pack sheds, the broader context needs to be appreciated. The wildflower harvesting industry is enmeshed within Global Value Chains (GVCs), as most of the harvested product is exported to overseas markets. Figure 3 illustrates the growth in Cape Flora bouquet production between 2008 and 2011. In most circumstances, the pressure becomes greater the further down the GVC that stakeholders are situated.<sup>34</sup> As most of the product is exported to Europe and the UK, the lead companies that apply pressure down the chains are the supermarkets and large flower importers. These companies are introducing more exacting requirements from the harvesters in the shape of 'just in time' supplies and challenging product specifications. These requirements in some cases lead to overharvesting, with knock-on effects for the workers who have to work long hours to meet deadlines, often in difficult conditions. Despite the growing demand for Cape flora bouquets (Figure 3), suppliers report that they have been squeezed increasingly tightly because of the economic recession afflicting target markets. From the retailer perspective, market growth has been achieved by offering good value to consumers.

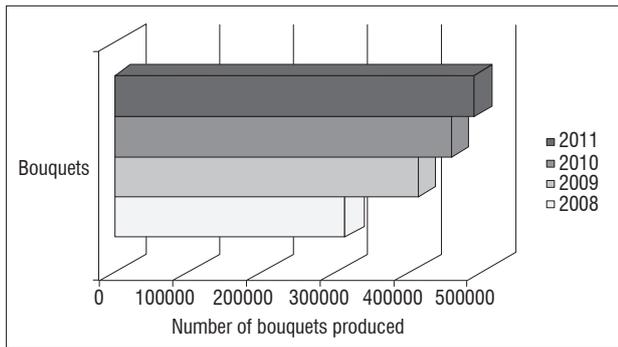


Figure 3: Production of Cape flora bouquets at Fynsa 2008–2011.<sup>44</sup>

### Competition in the wildflower harvesting industry

As a result of this competition, it seems as if the successful companies are those that operate on a large scale. As outlined by Respondent 10: ‘With wild fynbos you need a lot of land to be a supplier, you can’t do it on 4000 ha, only as a side-line maybe, not as a proper business. You need at least 10 000 ha, as you must have all the different species all through the year.’ The increasing focus on lower value fynbos greens perpetuates the need to harvest large quantities to make a decent profit.

Harvesting different species throughout the year necessitates access to vast areas of land in order to take advantage of economies of scale. Harvesters have incurred extra costs as a result of the 2013 rural wage increase and steadily increasing fuel prices. Those operating on a large scale are in a better position to absorb these costs into their business models, and are able to invest in plant and infrastructure development, for example, purchasing of 4x4 *bakkies* which are essential for accessing remote picking grounds and transporting the product.

From the pack shed owners’ perspective, there are also advantages to sourcing from large suppliers. Pack sheds are under pressure to deliver standardised final products. Sourcing from a number of different harvesters makes achieving this standard difficult, as there can be variations in stem length and colour depending on the growing conditions in different locations. It is also logistically much easier to deal with a few large harvesters than with many smaller harvesters.

### How might competition be reduced?

Respondents suggested that competition in the industry might be reduced if there was an increase in demand for the product. Respondent 14 commented: ‘People are worried and say the “pie is only this big”, but that is only because the demand is only so big’. Therefore, increasing demand should ease competitive pressure through allowing the ‘pie’ to grow, which should ultimately reduce competitive pressures. Our interviews indicate that the best way to do this is either to differentiate the product or to find new markets. With the exception of Respondent 7, who has been able to find a niche market, all the other harvesters interviewed had difficulty finding good markets. As it is difficult to differentiate the product on an individual scale, there is a need to look towards increasing the demand for fynbos for the industry as a whole. In recent years, the South African market for wildflowers has grown steadily with an increasing demand for fynbos.

In overseas markets it seems that the ethical story of poverty alleviation and conservation is a good selling point for fynbos. There is possibly some scope to sell a similar story to the local South African market, with the added value of buying a local product. However, using the ethical story will not necessarily guarantee improved sales, as a number of other products sold in South Africa and overseas also have ethical stories behind them. For example, Kenya has a long history of exporting flowers to the UK and Europe with ethical stories as a selling point.<sup>45,46</sup> It seems that the wildflower harvesting industry as a whole needs to become more innovative in trying to differentiate the fynbos product and thus possibly achieve an increase in demand. But in order to achieve innovation, we suggest that levels of communication must be improved within the industry.<sup>35</sup>

## Communication within the wildflower harvesting industry

Every respondent in our field-based research spoke of a serious lack of communication within the industry and that communication is largely informal. Respondent 7 commented: ‘A lot of us are pals and *braai* [barbecue] and watch rugby together on a Saturday. Come Monday, however, and we do not want each other near our sheds, so there is communication, but it is bordered off.’ Whilst the larger harvesters, pack sheds, NGOs and government organisations have improved communication in recent years, the PPSA has been advocating for even better communication and has recently argued that wildflower harvesters should be part of their association. However, despite a 90% representation from the cultivated harvesters, unfortunately there are currently only six or seven wildflower harvesters involved through the Sustainable Harvesting Committee.<sup>16</sup>

Because of a general lack of communication, it is evident that there is serious fragmentation within the wildflower harvesting industry, largely driven by its strongly competitive nature. Stakeholders are scared to share too much information as they are afraid that it could potentially harm their businesses. There is a fear that other harvesters could outcompete them and take their harvesting lands, their innovative ideas and products, and ultimately their markets. Thus, a lack of trust is an inhibiting factor in the future development of the industry.

The first logical step to improving communication is to try to break down the barriers to communication by creating a more trusting environment. The informal communication which seems to exist should not be undervalued.<sup>36,37</sup> A number of respondents agreed that in order to improve more formal communication, it is essential that communication first commence at an informal level within local networks. The best approach might be to encourage communication through people who are already part of committees or organisations such as PPSA, especially people who are well known and respected within the industry. Those who are part of PPSA have explained that they have gained much from increased communication and membership of associations. As outlined by Respondent 18, ‘people need to see the benefits of joining a group...if they see no real benefits for themselves then they will not see the point’. All respondents stated that communication is one of the keys to resolving some of the main challenges within the industry. A range of benefits was discussed, such as improved information sharing, but the benefit most frequently mentioned was the potential for collective bargaining.

### A possible ‘Wildflower Harvesting Forum’?

The potential benefits from increased information sharing, and in particular collective bargaining, are immense and it is apparent that there is an urgent need to set up some form of collective. With so many challenges, it seems the industry cannot afford to carry on with the status quo if it wants to remain sustainable and viable. In light of the evidence gained from field-based research, it seems there is a strong motivation for the establishment of a ‘Wildflower Harvesting Forum’. When enterprises work largely in isolation, there is an uncompetitive production pattern which ultimately does not result in innovation.<sup>35</sup> Setting up a forum could be a way to enhance both innovation and sustainability within the industry.

Moving beyond merely improving communication, a forum should be able to organise and channel communication in an effective and efficient way. Such a forum could strengthen local, vertical and horizontal linkages, in addition to external linkages between harvesters and other stakeholders.<sup>47</sup> Through developing a forum, a ‘one-stop shop’ could be set up to provide a single source of contact between harvesters and various local institutions.

A forum could also improve the basis for collective bargaining, as harvesters will be in a much better position to lobby government and markets. Respondents noted that collective bargaining would enable stronger negotiation around prices from pack sheds and retailers. Additionally, more favourable conditions could also be negotiated, for example, giving more control over the products that are rejected. On an individual basis, there is little scope for bargaining, as pack sheds have the ability to simply source the product from another harvester.

However, pack sheds will have less opportunity for bargaining if they are dealing with a more powerful and unified body of harvesters. Furthermore, a forum is likely to have more power in negotiations with government concerning the development of more supportive legislation.

Ideally, a forum should develop from increased communication, co-operation and trust, building on the informal links and communication which already exist. Those leading the process need to be trusted and the benefits of cooperation emphasised. Perhaps initially, certain common challenges could be discussed such as alien clearing, fire management and the implications of the 2013 wage increase. By starting locally and informally, and discussing issues with no possible economic repercussions, levels of trust should hopefully improve, such that more sensitive economic matters could be raised. To this end, the Sustainable Harvesting Committee has proposed that regional forums, which would feed into CapeFlora SA, should be created for wild harvesters.

## Conclusion

A Wildflower Harvesting Forum could be pivotal in addressing, in a cooperative and community-based manner, the many challenges facing the industry. The people who might potentially drive the establishment of a forum are probably those who are already members of key committees or organisations such as the CapeFlora SA, and therefore have well-established links.

Although harvesters are, perhaps understandably, more concerned about their immediate economic viability, a forum would act as a critical space to embed environmental and social sustainability as well as longer-term economic sustainability. In light of the importance and vulnerability of the CFR, if environmental concerns are not addressed and unsustainable harvesting occurs, the CFR will become severely degraded, resulting in the eventual collapse of the industry. In relation to the alleviation of poverty, the legacies of apartheid are still deeply embedded in society, which is most evident amongst the historically disadvantaged communities of the Agulhas Plain. Promoting sustainable harvesting and wider social ethics must be key considerations in the future development of the industry. Recent research suggests that a forum could play a much-needed role in pulling together disparate voices to promote the environmental and socio-economic credentials of the industry. Ultimately, changes need to be made to the distribution of value which may well necessitate restructuring of the value chain. For these changes to occur, industry players must collaborate and speak with a coherent voice, which can only happen if strong institutions develop at the base of the value chain. We strongly endorse the recommendation of the Sustainable Harvesting Committee to create regional forums and would urge that resources are provided to ensure that this initiative is established and that the wildflower industry develops a reputation for professionalism befitting players in an international industry.

## Acknowledgements

We thank the Flower Valley Conservation Trust for all their support and the participants who contributed to this study for their time. We are further grateful for constructive comments from the anonymous referees and the editor.

## Authors' contributions

T. Blokker was the primary researcher and author; and T. Binns and D.B. supervised the research and provided significant input in the writing of the paper.

## References

1. Agulhas Biodiversity Initiative (ABI). Agulhas Biodiversity Initiative: Project brief. Cape Town: ABI; 2003.
2. Privett S, Lutzeyer H. Field guide to the flora of Grootbos Nature Reserve and the Walker Bay region. Cape Town: Grootbos Foundation; 2010.
3. Turpie J, Heydenrych BJ. The Cape Floral Kingdom's fynbos vegetation. In: Perrings C, Williamson M, Dalmazzone S, editors. The economics of biological invasions. Cheltenham: Edward Elgar; 2000. p. 553–556. <http://dx.doi.org/10.4337/9781781008645.00018>

4. Privett S. Flower Valley review for the Arcadia Fund: Final report (Confidential). Cape Town: Fynbos Ecoscapes; 2010.
5. Richardson L. Agulhas Plain fynbos monitoring project. Bredasdorp: Flower Valley Conservation Trust; 2013.
6. Nel E, Binns T, Bek D. Fair trade and alternative food networks in the internationalization of small-scale rural entrepreneurs in South Africa. In: Etemad H, editor. The process of internationalization in emerging SMEs and emerging economies. Cheltenham: Edward Elgar; 2013. p. 234–259. <http://dx.doi.org/10.4337/9781781003190.00018>
7. Cowling R, Richardson D. Fynbos: South Africa's unique floral kingdom. Cape Town: Fernwood Press; 1995.
8. Bek D, Binns T, Nel E. Wild flower harvesting on South Africa's Agulhas Plain: A mechanism for achieving sustainable local economic development? *Sustain Dev.* 2013;21(5):281–293. <http://dx.doi.org/10.1002/sd.499>
9. Helliker KD. NGOs and rural movements in contemporary South Africa. *Soc Dynamics.* 2013;39(2):317–326. <http://dx.doi.org/10.1080/02533952.2013.806415>
10. Smith A. South African farmworkers sacked 'in truckloads' after strike, says union. *The Guardian.* 2013 January 24. Available from: <http://www.guardian.co.uk/world/2013/jan/24/truckloads-south-african-farmworkers-sacked/print>
11. Kotze M. PPSA producer survey results. Cape Town: Hortgro Services; 2012.
12. Agulhas Biodiversity Initiative (ABI). Summary of good practice guidelines for the sustainable use of indigenous wild fynbos resources. Cape Town: Cape Action for People and the Environment; no date.
13. Privett S, Bailey R, Raimondo D, Kirkwood D, Euston-Brown K. A vulnerability index for rare and harvested plant species on the Agulhas Plain. Bredasdorp: Flower Valley Conservation Trust; 2005.
14. Bailey R, Euston-Brown K, Privett S. Resource base assessment of wild fynbos plants on Waterford Farm, Agulhas Plain: A pilot study. Bredasdorp: Flower Valley Conservation Trust; 2007.
15. CapeNature. About CapeNature [homepage on the Internet]. c2013 [cited 2013 Jun 10]. Available from: <http://www.capenature.co.za/about-us/>
16. PPSA. Protea producers of South Africa [homepage on the Internet]. c2013 [cited 2013 Jun 10]. Available from: <http://www.capeflora.co.za/>
17. Chen S, Ravallion M. Absolute poverty measures for the developing world, 1981–2004. *Proc Natl Acad Sci USA.* 2007;104(43):16757–16762. <http://dx.doi.org/10.1073/pnas.0702930104>
18. Salafsky N, Wollenberg E. Linking livelihoods and conservation: A conceptual framework and scale for assessing the integration of human needs and biodiversity. *World Dev.* 2000;28(8):1421–1438. [http://dx.doi.org/10.1016/S0305-750X\(00\)00031-0](http://dx.doi.org/10.1016/S0305-750X(00)00031-0)
19. Fisher B, Christopher T. Poverty and biodiversity: Measuring the overlap of human poverty and the biodiversity hotspots. *Ecol Econ.* 2007;62(1):93–101. <http://dx.doi.org/10.1016/j.ecolecon.2006.05.020>
20. Crane W. Biodiversity conservation and land rights in South Africa: Whither the farm dwellers? *Geoforum.* 2006;37(6):1035–1045. <http://dx.doi.org/10.1016/j.geoforum.2006.07.002>
21. Adams WH, Aveling R, Brockington D, Dickson B, Elliot J, Hutton J, et al. Biodiversity conservation and the eradication of poverty. *Science.* 2004;306:1146–1149. <http://dx.doi.org/10.1126/science.1097920>
22. Roe D, Yassin Mohammed E, Porras I, Giuliani A. Linking biodiversity conservation and poverty reduction: De-polarizing the conservation-poverty debate. *Conserv Lett.* 2012;6(3):162–171. <http://dx.doi.org/10.1111/j.1755-263X.2012.00292.x>
23. Oates JF. Myth and reality in the rain forest: How conservation strategies are failing in West Africa. Berkeley, CA: University of California Press; 1999.
24. Terborgh J. Reflections of a scientist on the world parks congress. *Conserv Biol.* 2004;18(3):619–620. <http://dx.doi.org/10.1111/j.1523-1739.2004.01837.x>

25. Matsuoka S, Komatsu S. Social capacity development for environmental management. In: Matsuoka S, editor. *Effective environmental management in developing countries: Assessing social capacity development*. New York: Palgrave MacMillan; 2007. p. 23–52.
26. Bishop J, Kapila S, Hick F, Mitchell P, Vorhies F. *Building biodiversity business*. London: Shell International Limited and the International Conservation of Nature; 2008.
27. Fisher R, Maginnis S, Jackson W, Barrow E, Jeanrenaud S. *Linking conservation and poverty reduction: Landscapes, people and power*. Hoboken, NJ: Taylor and Francis; 2012.
28. Van Beukering PJ, Papyrakis EB, Bouma J, Brouwer R, editors. *Nature's wealth: The economics of ecosystem services and poverty*. Cambridge: Cambridge University Press; 2013. p. 1–31. <http://dx.doi.org/10.1017/CBO9781139225311>
29. Bell RG, Russell C. Environmental policy for developing countries. *Issues Sci Technol*. 2002;18(3):63–70.
30. Hardin G. The tragedy of the commons. *Science*. 1968;162(3859):1243–1248. <http://dx.doi.org/10.1126/science.162.3859.1243>
31. Gereffi G, Humphrey J, Sturgeon T. The governance of global value chains. *Rev Int Polit Econ*. 2005;12(1):78–104. <http://dx.doi.org/10.1080/09692290500049805>
32. Ponte S, Gibbon P. Quality standards, conventions and the governance of global value chains. *Econ Soc*. 2005;34(1):1–31. <http://dx.doi.org/10.1080/0308514042000329315>
33. Humphrey J, Memedovic O. *Global value chains in the agrifood sector*. Vienna: United Nations Industrial Development Organization; 2006. Available from: [https://www.unido.org/fileadmin/user\\_media/Publications/Pub\\_free/Global\\_value\\_chains\\_in\\_the\\_agrifood\\_sector.pdf](https://www.unido.org/fileadmin/user_media/Publications/Pub_free/Global_value_chains_in_the_agrifood_sector.pdf)
34. Raworth K. *Trading away our rights: Women working in global supply chains*. Oxford: Oxfam; 2004. Available from: <http://www.oxfam.org/sites/www.oxfam.org/files/rights.pdf>
35. United Nations Industrial Development Organization (UNIDO). *Clusters and business linkages* [homepage on the Internet]. No date [cited 2013 Aug 09]. Available from: <http://www.unido.org/clusters/>
36. Cousins PD, Handfield RB, Lawson B, Petersen KJ. Creating supply chain relational capital: The impact of formal and informal socialization processes. *J Oper Manag*. 2006;24(6):851–863. <http://dx.doi.org/10.1016/j.jom.2005.08.007>
37. Lawson B, Petersen KJ, Cousins PD, Handfield RB. Knowledge sharing in interorganizational product development teams: The effect of formal and informal socialization mechanisms. *J Prod Innovat Manag*. 2009;26(2):156–172. <http://dx.doi.org/10.1111/j.1540-5885.2009.00343.x>
38. Prahinski C, Benton W. Supplier evaluations: Communication strategies to improve supplier performance. *J Oper Manag*. 2004;22(1):39–62. <http://dx.doi.org/10.1016/j.jom.2003.12.005>
39. Axelrod R. *The evolution of cooperation*. New York: Basic Books; 1984.
40. Messner D, Meyer-Stamer J. *Governance and networks. Tools to study the dynamics of clusters and global value chains*. Duisburg: INEF; 2000.
41. Bolton GE, Ockenfels A. ERC: A theory of equity, reciprocity, and competition. *Am Econ Rev*. 2000;90(1):166–193. <http://dx.doi.org/10.1257/aer.90.1.166>
42. Privett S. *Livelihoods out of the ashes: An opportunity analysis following the 2006 Overberg Fires*. Cambridge: Fauna and Flora International; 2006.
43. Conradie B, Knoesen D. A survey of the cultivation and wild harvesting of fynbos flowers in South Africa [document on the Internet]. c2010 [cited 2013 Nov 12]. Available from: <http://www.flowervalley.org.za/pdfs/PPSA%20report%20Conradie%20Knoessen.pdf>
44. Bek D. End of project review for WWF Table Mountain Fund. Cape Town; 2012.
45. Hughes A. Global commodity networks, ethical trade and governmentality: Organizing business responsibility in the Kenyan cut flower industry. *T I Brit Geogr*. 2001;26(4):390–406. <http://dx.doi.org/10.1111/1475-5661.00031>
46. Barrett HR, Ilbery BW, Brown AW, Binns T. Globalization and the changing networks of food supply: The importation of fresh horticultural produce from Kenya into the UK. *Trans Inst Br Geogr*. 1999;24(2):159–174. <http://dx.doi.org/10.1111/j.0020-2754.1999.00159.x>
47. Giuliani E, Pietrobelli C, Rabellotti R. Upgrading in global value chains: Lessons from Latin American clusters. *World Dev*. 2005;33(4):549–573. <http://dx.doi.org/10.1016/j.worlddev.2005.01.002>

