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Never a rose without a prick : (Dutch) multinational companies and productive employment in the Kenyan flower sector

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Never a Rose without a Prick: (Dutch) multinational companies and productive employment in the Kenyan flower sector

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(Dutch) multinational companies and productive employment in the Kenyan flower sector



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Abstract

The flower sector in Kenya accounted for over 65 per cent of new jobs created in the agricultural sector between 2010 and 2015 and remains a major employer in the country. The floriculture value chain involves a variety of players involved in activities, such as plant development and growing, providing necessary inputs, transport and handling – each of them generating a part of the direct or indirect employment. The quality of this employment is, however, less clear.

In 1978, the flowers' export volume was 3,000 tons. Since then, the sector has grown by an average of 16 per cent per year in terms of volume and 25 per cent in terms of value of production. Foreign investors and partners played a critical role in launching and expanding the floriculture industry in Kenya. Dutch companies started flower export businesses, and Dutch and Israeli advisors have been important sources of technical support. Initially, large and medium flower farms were mostly owned by foreigners, Kenyans of foreign descent or members of the Kenyan (political) elite. Kenyan smallholders were also involved in flower growing at that stage. In 2016, approximately 190 flower farms and 5,000 smallholder farmers were involved in the flower production. Today, flower growing is done predominantly by Kenyan-owned farms, while Dutch companies dominate the breeding and propagation activities. Growers provide the highest employment opportunities in the entire chain, predominantly for women, due to the labour intensive character of their operations. Breeders, propagators and other companies in the chain hire less people directly but create important indirect employment in the sector.

The support of the Kenyan government in promoting the floriculture sector was mixed through the years and was not the decisive factor in the sector development. The success of the industry is, to an extent, a result of the capacity of the private sector to develop independently from the state and the capacity to quickly adapt to changing circumstances. Following the rapid development of the sector in the mid-1990s, flower companies have been criticized for poor labour standards and a number of other abusive practices. In response to this criticism, the companies have adapted a range of international and national social and environmental standards that should lead to improved labour conditions.

This working paper's primary objective is to assess to the extent to which the flower sector and the jobs created have been sustainable, inclusive and productive; and whether there are any differences between practices and quality of employment created by the international players, particularly Dutch companies in comparison to the non-Dutch counterparts. The secondary objective is to assess and understand what are the main challenges for the companies in the flower sector to create and maintain (productive) employment, as well as other pitfalls in their day-to-day operations. For this purpose, a mixed methods approach to data collection was implemented, including a sector-wide standardized questionnaire, case studies and a number of key informant interviews. This report concludes with a set of policy recommendations targeting the Kenyan government and the international community.

1 Introduction

The development of the flower sector has been considered by some as one of Kenya's major economic success stories (Dolan & Opondo, 2005; English, Jaffee, & Okello, 2006; Steve Jaffee, 1995; Steve Jaffee, Henson, & Rios, 2011b) and as a curse by others. Since the sector's rapid development, flower companies have been criticized for poor labour standards (HIVOS, 2013; KHRC, 2012; Leipold & Morgante, 2013; Riisgaard, 2007, 2009b), cases of sexual harassment (Barrientos, Dolan, & Tallontire, 2003; Dolan, Opondo, & Smith, 2002; Dolan & Sorby, 2003; KHRC, 2012; Lowthers, 2015), unsafe use of chemicals (FAO, 2002; Hale & Opondo, 2005; Leipold & Morgante, 2013; Lim, Nabeegh, & Qing, 2010; Mlynska, Wass, & Amoding, 2015), negative environmental impact (Barlow, 2008; *Daily Nation*, 2011a, 2011c; English et al., 2006; Leipold & Morgante, 2013; Vasagar, 2006; Williams, 2007), tax avoidance practices (*Daily Nation*, 2010, 2011b; Irgungu, 2013), land issues (Kirigia, Betsema, Van Westen, & Zoomers, 2016; Mlynska et al., 2015), over-certification (Riisgaard, 2009b; Wijnands, 2005), and marginalization of smallholder farmers (Dolan & Sorby, 2003; Kirigia et al., 2016; Mitullah, Kamau, & Kivuva, 2017; Muthoka & Muriithi, 2008; Mwangi, 2017; Zylberberg, 2013) among others. Despite the negative press, with earnings equivalent to Ksh 70.8 billion¹ (in 2016) (Kenya Flower Council (KFC), 2017a), floriculture remains one of Kenya's top foreign exchange earners² (Mwaniki, 2017), contributing 1.1 per cent of the GDP (2016). Moreover, the flower sector remains a major employer in the country. The Kenya Flower Council (KFC) estimates (although the figures are slightly out of date now³) indicate that the sector generates about 90,000 jobs directly at flower farms and about 500,000 indirectly. Through backward linkages, the floriculture industry has an impact on over 2 million livelihoods (KFC, 2017a), which equates to five per cent of the Kenyan population.

The floriculture value chain involves a variety of players involved in activities, such as plant development and growing, providing necessary inputs, transport and handling – each of them generating a part of the direct or indirect employment. The most visible (and most criticized) part of the chain is located on the flower farm. Within the plant growing sub-sector, we actually distinguish three main activities: breeding (developing new varieties), propagation (multiplying by any process of natural reproduction from the parent stock) and growing plants. Growers provide the highest employment opportunities in the entire chain, predominantly for women (Dolan & Sorby, 2003; Leipold & Morgante, 2013; Mitullah et al., 2017; Opondo, 2002; Riisgaard, 2009b; Whitaker & Kolavalli, 2006b). Due to the nature of their work, breeders and propagators hire less people. However, breeders contribute substantially to indirect employment creation. Indirect employment is also created by a number of local and international companies that provide necessary materials, chemicals, fertilizers, transport and other logistics, as well as middlemen who consolidate the flowers from smallholder farmers to sell them on the international market.

¹ 100Ksh = ±1 \$; 100Ksh = ± 0.80 €.

² In 2017, horticulture was the fourth main foreign exchange earner after remittances, tea and tourism (Mwaniki, 2017).

³ The same estimates are in circulation since 2010 (Maina, Mutitu, & Ngaruiya, 2011; Perry, 2012). In the last eight years, the sector has expanded in terms of production and it will be of utmost importance to check whether this expansion has also generated additional employment. Unfortunately, reliable data, also regarding employment among smallholders, are missing, as the Ministry of Agriculture (and their extension services) does not collect them on regular basis.

In 2016, approximately 190 flower farms were owned by 145 companies⁴ – mostly medium and large multinationals – were under commercial floriculture.⁵ Additionally, it is estimated that approximately 5,000 smallholder farmers are also involved in the flower production (Mitullah et al., 2017; Riisgaard, 2009b); nevertheless, their overall contribution to the sector remains marginal but is gently increasing. The initial development of the sector in the 1970s and in the 1980s was largely driven by European (Dutch) investors. However, the composition of the industry has changed considerably during the last thirty years. Contrary to popular belief, that mostly Dutch companies grow flowers in Kenya, the flower growing is done predominantly by Kenyan-owned farms. Dutch companies do dominate breeding and propagation activities, however. Over the years, the sector has matured and is considered well developed. The sector can be considered saturated currently, so mergers and fusions are not uncommon, but there are still newcomers, mostly local, entering the sector each year. Consequently, the sector remains an important employer in the country. It has been estimated that it accounted for over 65 per cent of new jobs created in the agricultural sector between 2010 and 2015 (Mitullah et al., 2017), but the quality of this employment is less clear. This raises questions about the extent to which the sector and the jobs created are sustainable, inclusive and productive, and whether there are any differences between practices and quality of employment created by the international players, particularly Dutch companies in comparison to the non-Dutch counterparts.

This study sought to assess and understand what are the main challenges for the companies in the flower sector to create and maintain (productive) employment, and thus contribute to inclusive development of the country, as well as other pitfalls in their day-to-day operations. As a sector with high potential to generate much-needed jobs in Kenya, this research investigated the Kenyan part of the floriculture value chain by using a mixed methods approach to data collection, including a sector-wide standardized questionnaire, case studies of selected farms and a number of key informant interviews with owners and managers of the companies in the value chain and other key stakeholders.

2 Floriculture Sector in Kenya

2.1 History and current status of the flower sector in Kenya

The sector origins can be traced back to the beginning of the 20th century (Picture 1), when a number of smallholder farmers started to grow cut flowers.⁶ Kenya's first operations to grow

⁴ Own calculations based on desk research. As the sector is very dynamic, mergers and/or takeovers are quite frequent.

⁵ Own calculations based on multiple internet sources.

⁶ The first type of cut flower cultivated in Kenya was pyrethrum. Pyrethrum is a flower and a cash crop grown for its natural pyrethrins, which are used in producing insecticides (Highchem Agriculture, n.d.). It was introduced in Kenya in 1928 by white settlers and, by the end of the Second World War, Kenya had become a major source of pyrethrum in the world (Casida, 2012). The sector received support from the Dutch government, mainly in the 1970s and 1980s. At its peak, pyrethrum production engaged about 200,000 farmers with over two million people benefiting directly or indirectly. The pyrethrum industry however suffered a steady decline starting from early 1990s, which was caused by, among other things: non-conducive policy and regulatory environment; unmet demand; mismatch between market requirements and production (cyclic trend), farm level issues such as low productivity and profitability, scarcity of planting materials, high costs of production, delayed payments to farmers, and increased competition from synthetics. Today, Kenya is ranked third in the world's biggest producers of dried pyrethrum. However, despite producing the best

commercial cut flower for exports started before 1950 and were undertaken by a few small nurseries run by European settlers (Steve Jaffee, 1992).

Picture 1. First flower garden in Ilula (Eldoret) Kenya, ±1914



Source: Kenya National Archives, 631.POT. 964647

The first large-scale flower farm was established by a Danish investor – Dansk Chrysanthemum Kultur (DCK) – in Eastern Province in 1969, as a result of the owner of DCK International, Jan Bonde Nielsen’s high profile connection with Bruce MacKenzie, Jomo Kenyatta’s Minister for Agriculture. Until 1969, the Kenyan government (GoK), was generally very supportive of the new international investment (Kamau, 2017). With regard to DCK, the Danish government provided a grant equal to one third of the total investment costs and GoK provided land (under a low-cost, long-term lease), exclusive growing and trading rights for eight years on several types of flowers, unlimited work permits for expatriate workers, and a 25-year guarantee not to change laws on foreign investor taxation and profit repatriation (Cleaver, 1993; Steve Jaffee, 1992; Whitaker & Kolavalli, 2006a). Later, the Minister MacKenzie became a shareholder in DCK East Africa (Kamau, 2017). In the 1970s, DCK expanded its operations by acquiring two additional estates: a large-scale farm in Naivasha for producing carnations and a smaller one in Updown, near Nairobi, to be used as a nursery. Rapidly, the company provided large-scale employment opportunities and, as early as 1971, it signed an agreement with the Kenya Plantation and Agricultural Workers Union (KPAWU) (Gemählich & Kuiper, 2017). The original estate did not work out though, and, in 1976, DCK farms were passed into Kenyan hands after the main Danish stakeholder suddenly pulled out.⁷ Leading government officials became major shareholders in the Updown farm and decided to restructure the farm into a smallholder outgrower scheme, in order to expand Kenyan participation in a rapidly growing industry controlled largely by European expatriates. Updown, however, collapsed in 1978, shortly after its takeover by

quality pyrethrum in the world, its share in the world market fell from a high of 70 per cent to a staggering low of 2 per cent, with many farmers losing the source of their income (AGRIPRENEUR, 2016; Monda, 2014).

⁷ It was later discovered that the company used its multinational structure to avoid paying taxes in Kenya. It was estimated that DCK East Africa, together with its associated companies Sulmac, Suswa Limited and Updown, cost Kenya more than Sh500 million in foreign exchange losses (Kamau, 2017).

the government-owned Agricultural Development Corporation (ADC), which had dismissed all the expatriate personnel. Most of the farmers who had acquired floriculture skills in DCK continued growing flowers for commercial purposes, while many of the former DCK's expatriate employees set up their own small companies and provided flower marketing services (Steve Jaffee, 1992). British Brooke Bond (which ran many tea estates in Kenya at that time) took over the DCK farm in Naivasha. The company retained some of the DCK expatriates, but renamed the farm Sulmac. With 120 hectares used for the cultivation of 50 different varieties of carnations, Sulmac became the largest operation of its kind in the world at that time and quickly (by 1979) accounted for 90 per cent of Kenya's flower exports. Sulmac further diversified its flower mix to include roses (English et al., 2006; Mitullah et al., 2017; Whitaker & Kolavalli, 2006a).

By the mid-1980s,⁸ there were more than 12 flower producers/exporters, mostly tied to international companies, but also several African owned farms (Cleaver, 1993; Steve Jaffee, 1992). Among the most substantial ventures was Oserian Development Company, established by a Dutch man – Hans Zwager and his wife June living in Kenya. Adjacent to Sulmac in Naivasha, Oserian started as a large-scale vegetable growing operation in 1969, but quickly diversified into cut flowers, using the existing irrigation, cold storage facilities and available former DCK employees. The company further expanded into the Dutch market by establishing a subsidiary company called East African Flowers (English et al., 2006; Zwager, 2005). The sector started to slowly take off and a few large cut flower investments, mainly involving joint ventures with Dutch companies were established in Naivasha. New investments were made mostly by managers and staff from Sulmac and Oserian, and by other larger fruit and vegetable production/export companies and by prominent Kenyan public officials. The Kenyan involvement in the sector typically took a form of joint ventures or use of technical assistance from expatriate flower specialists from Israel and the Netherlands. Parallel, local smallholder farmers also (re-)started flower farms,⁹ growing predominantly alstroemeria (mostly around Limuru and Kinangop) or other flower varieties either in wooden greenhouses or in the open air. These flowers were often sourced by larger farms and sold for export (English et al. 2006).

⁸ In the mid-1980s, a new development model, promoted by the International Monetary Fund (IMF) and the World Bank, became part of the new global and Kenyan development agenda. Structural Adjustment Programmes (SAPs) promoted export diversification to generate foreign exchange (Hughes, 2001; Rono, 2002). Non-traditional goods and high-value commodities ready for export, such as cut flowers, were highly compatible with this new regime and this was promoted as export diversification in the 1990s. A decade later, SAPs have been widely critiqued and their harmful socio-economic impacts are difficult to reverse (Little & Dolan, 2000). Despite the overall failure of SAPs, it is argued that the growth of floriculture is partly a result of the SAP implementation (Hughes, 2001), as it was an industry that grew consistently and remained (till today) one of the key sources of foreign exchange (Lowthers, 2015).

⁹ At the start of the industry, smallholders were much more involved in flower growing. Over time, their number, particularly that of outgrowers, has declined considerably with the shift towards rose production and the growing importance of economies of scale (Whitaker & Kolavalli, 2006b). Further elaboration of the role and status of smallholder flower producers can be found in the section 2.6 below.

Picture 2. An example of wooden greenhouses found in Limuru, Kenya



Source: Photo by the authors (2016).

The sector rapidly expanded in the 1990s, doubling the growing area, and the value of cut flower exports increased threefold. The main contributing factors that supported the sector growth were investment promotion, strengthening of the technical support network, improvements in infrastructure and, most importantly, reduced government intervention linked to the liberalization of Kenya's foreign exchange control regime and streamlining of importation procedures (equipment, planting material and other inputs). With lack of royalty laws in place, which would oblige the local growers to remunerate the breeders for their flower varieties, it was easier and more profitable for smallholders to grow flowers. However, a lack of plant variety protection legislation also caused the industry to stagnate, as without adequate protection for breeders, no new varieties were introduced in the country (English et al. 2006).

In the 1990s, the Kenyan government tried to take control over some key components of the value chain that further affected smallholder flower farmers. For instance, it attempted to control airfreight rates due to the concern about the non-repatriation of foreign exchange earnings by some exporters.¹⁰ This led to a rather problematic situation in which flower exporters were required to specify a fixed Freight on Board (FOB)¹¹ price for their sales. Since the market was dominated by commission-based or auction transactions, many of the export transactions involved fictional pricing. As much as the larger companies managed to retain sufficient foreign exchange abroad to purchase the necessary imported inputs, the small players did not. Furthermore, airfreight costs were equally affected by the government tax on aviation fuel and, in some cases, the charters decided to refuel in Tanzania prior to stopping in Nairobi (Harris, 1992). Smaller flower growers were also negatively affected by constrained access to the newest planting materials, as the government refused to sign the International Convention for the Protection of New Plant Varieties (developed by the

¹⁰ Flori- and horticultural exporters.

¹¹ 'Freight On Board' is a shipping term used in retail to indicate who is responsible for paying transportation charges. It is the point where ownership of the merchandise transfers from seller to buyer.

International Union for the Protection of New Varieties of Plants [UPOV]) (Whitaker & Kolavalli, 2006b). Larger companies were less affected by this restriction as, due to their diverse array of financial transactions abroad, they were able to secretly pay plant breeder royalties or introduce newer varieties from their own breeding schemes (English et al., 2006; Harris, 1992). In 1994, the Kenyan government introduced regulations for the implementation of a Plant Variety Protection (PVP) scheme, which became operational in 1997.¹² Responsibility for PVP was taken on by the Kenya Plant Health Inspectorate Service (KEPHIS)¹³ in 1998. Kenya officially acceded to the UPOV under the 1978 Convention in May 1999 and the 1991 Convention in May 2016. Since then, several breeding companies have entered the Kenyan market (UPOV, 2005).

Signing UPOV was an important step in Kenyan floriculture as it strengthened intellectual property protection in Kenya (Bolo, 2006). It encouraged private research entities and breeders to operate in Kenya and also facilitated access to patented innovations and other international research outputs in the industry. As a result, foreign breeders swiftly started to introduce their flower (and other horticultural) varieties, with the majority of applications for protection concerning different varieties of roses.¹⁴ All flower breed varieties were of foreign origin; nevertheless, their introduction has contributed to the diversification of the Kenyan floricultural sector and to the development of a global trade of floricultural products. Consequently, the export of Kenyan cut flowers to the European market increased from 129 million euros in 1999 to 208 million euros in the space of four years (UPOV, 2005).

The global market was dominated by commission-based or auction transactions, with Flora Holland in the Netherlands becoming the major hub for flower trading in Europe and even worldwide. Over time, Tele Flower Auction (initiated by Oserian through their subsidiary East African Flowers) and direct selling became an important way to market and sell flowers. As air transport constitutes one of the major costs within the flower value chain, it is important for the growers to produce high 'volumes' of flowers. That is also a reason why the sector is dominated (75 per cent) by the large-scale farms. Back in the 1970s and 1980s, the large growers were supplementing their production with flowers grown by the small-scale farmers; yet, over the years, with the increasing demand for the high-quality and certified flowers on the global market, as well as UPOV royalty requirements, it became increasingly difficult for smallholders to adapt to the new regimes. In recent years, however, a re-establishment of companies that source flowers from smallholders has been observed.¹⁵ At the same time, the industry was also facing pressure from non-governmental organizations to engage more in environmental preservation, particularly around Lake Naivasha where the industry was blamed for a number of ecological problems facing the lake.¹⁶ In reaction to the criticism, the industry adopted a range of private social and environmental standard initiatives at the beginning of

¹² In Kenya, provisions for the protection of plant varieties were first introduced by the Seeds and Plant Varieties Act of 1972. That Act provided for the grant of proprietary rights to persons having bred or discovered new varieties of plants. The Act was revised in 1991, which led to the introduction of Plant Variety Protection scheme in 1994 that ultimately became operational in 1997 (UPOV, 2005).

¹³ The Kenya Plant Health Inspectorate Service (KEPHIS) was established in 1996 as the national regulatory agency responsible for variety evaluation, release, and registration; PVP; seed certification; plant protection; and development and implementation of seed standards (UPOV, 2005).

¹⁴ Between 1997 and 2003, the number of applications for roses represented 40.4 per cent of the total applications for protection (UPOV, 2005).

¹⁵ These companies, as well as collectives of smallholder flower farmers are still facing challenges to access international markets due to the difficulty of obtaining required certifications.

¹⁶ Although some of the ecological issues were further dismissed as being caused by the local farmers and not by the flower industry (Everard & Harper, 2002; Mbaria, 2012; Mekonnen, Hoekstra, & Becht, 2012).

the 21st century. The majority of standard initiatives come from Europe, but there are examples of national initiatives initiated by the Kenyan Flower Council (KFC). The producers have also adopted standards to fulfil the requirements of overseas customers, to gain access to new markets and as protection against overseas and local allegations of exploitation of workers and the natural environment. Initially, standards mostly covered technical issues, such as chemical usage and environmental management, but this further expanded to components relating to workers' welfare¹⁷ (English et al., 2006; Riisgaard, 2009a).

Foreign investors and partners played a critical role in launching and expanding the floriculture industry in Kenya. Since the liberalization in the 1990s, the sector has largely been driven by the market forces with the private sector taking the lead. Dutch companies started flower export businesses, and Dutch and Israeli advisors have been important sources of technical support. Initially, flower farms were owned mostly by foreigners, Kenyans of foreign descent or members of the Kenyan (political) elite (Whitaker & Kolavalli, 2006b). Today, flower growing companies are mostly in the hands of Kenyan managers, with many being still owned by prominent (and politically linked) Kenyan families, such as: Karen Roses,¹⁸ Sian Roses,¹⁹ Enkasiti Flowers,²⁰ Simbi Roses,²¹ Suera Flower Farm²² and Zena Roses Limited,²³ among others. The reason behind such involvement of high-profile Kenyan names is twofold. Firstly, in the African setting, business and politics goes hand in hand (Akinyoade, Dietz, & Uche, 2017). Secondly, setting up a flower farm requires a very high initial capital and access to a large piece of land, not to mention access to the flower business know-how. This is possible for those investors with political connections. The support of the Kenyan government in promoting the floriculture sector has been mixed over the years. For instance, before the liberalization of foreign exchange controls, import duties on many inputs, pre-shipment inspections and corruption raised the cost of doing business. For a long time, the failure to sign the UPOV constrained access to the newest flower planting materials. In contrast, the Kenyan government has recently been more supportive of the private sector and foreign investment compared to most other African countries. The trade has been facilitated through the provision of incentives in the form of nil or reduced duties and other taxes on imported inputs, such as greenhouses, greenhouse covers, refrigeration equipment for cooling and cold stores, dam construction lining and shade netting, among others (James Kariuki, 2018). The government's commitment to a realistic exchange rate was critical in protecting the industry's competitiveness, as was its liberal approach to foreign work permits for expatriates. The government's initial lack of attention to the sector has been considered

¹⁷ Read more about the standards in the flower sector in Annex 4: Key Quality Standards in Kenya's Floricultural Sector.

¹⁸ Karen Roses in Nairobi is owned by the former governor of the Central Bank, Eric Kotut (Munene & Njeru, 2004; Perlez, 1991).

¹⁹ Sian Roses, with farms in Nakuru, Eldoret and Kitangela is owned by the former President Moi's family together with his (former) personal secretary Joshua Kulei.

²⁰ Enkasiti Flowers in Thika is owned by a family of George Musengi Saitoti – a former vice-president of President Moi and a Minister for Internal Security and Provincial Administration in the Kibaki government.

²¹ Simbi Roses in Thika is owned by Simeon Nyachae – a Kenyan politician and former government minister from Kisii County.

²² Suera Flower Farm in Nyahururu is in the hands of Erastus Mureithi – a former managing director of the Co-operative Bank of Kenya, a former Ol Kalou MP and chairman of the Kenya Flower Council (Njoroge & Wanjiru, 2017).

²³ Zena Roses Limited in Gatanga is owned by Sally Kosgey – a former minister for higher education in the coalition government of 2008 and later Agriculture Minister. She is also a former Permanent Secretary in the Office of President Daniel Arap Moi, Head of Civil Service and Secretary to the Cabinet (Njoroge & Wanjiru, 2017).

favourable by many exporters at that time. Yet, its early direct assistance to the Danish DCK may well have been key to the initiation of the large-scale flower production in Kenya. Nevertheless, the success of the industry is, to an extent, a result of the capacity of the private sector to develop as independently from the state as possible and the capacity to quickly adapt to changing circumstances (English et al., 2006; Rikken, 2012).

2.2 Cut flower value chains

A typical floriculture chain²⁴ starts from the cutting and continues through a grower company, logistic company, (auction), and retail up to a final consumer. Most of the literature analysing the floriculture value chain starts its analysis from the level of the grower (Mlynska et al., 2015; Riisgaard, 2009a; Rikken, 2011; Rikken & Hulst, 2012). However, if you are a purely growing company, you need to source the necessary planting material first. The planting materials can be a seed, but in the case of roses, it is rather in the form of a cutting or a grafted cutting.²⁵ Picking the right variety is a critical element of the grower's operations, as the type and quality of the planting material will determine the future sales and revenues. Royalties paid to breeders for the rights to their plant materials are substantial costs for the companies. Depending on the scale of production, they can constitute between 2% and even up to 40% of the total production costs (Own interviews, 2016; Thoen et al. 1999 cited in Wijnands 2005). This structure results in a situation where a handful of breeding companies are in the position to dictate who will grow what and for how much that given season. Their position in the sector is so strong that they basically "hold the sector to ransom," as one key stakeholder described it (Own interviews, 2015). This is why breeders and propagators of cuttings and other young plant material are the most critical element of the floriculture value chain.

There are 20 major rose breeding companies in the world, practically all in Europe. The Netherlands is among the most advanced producers and home to the majority of the companies in this field²⁶ (Wijnands, 2005). A breeding company develops new varieties of flowers (typically) in their home country²⁷ and further exports it to Kenya for trials at their local premises. There is a clear need to conduct more research into Kenya's flora to identify and potentially locally develop new indigenous flower varieties for commercialization (Bolo, Muthoka, Washisino, Mwai, & Kisongwo, 2006).²⁸ However, developing a new breed of a plant is a long, capital intensive and high-risk process that may take up to ten years (Whitaker & Kolavalli, 2006b). The breeders are compensated for their investments through a system of royalties and licences, regulated by the UPOV guidelines for legislation on plant breeders' rights (Wijnands, 2005). The local branch in Kenya also acts as a showcase greenhouse where the breeder invites growers to visit and to choose from the different varieties on the display. Most growers source from multiple breeders (Perry, 2012; Research Team, 2017). Under strict breeders' licences, young plant material is also increasingly propagated at production facilities in low-cost countries. Most of the propagators are subsidiaries of European breeders, which supply their mother companies on direct order (Whitaker & Kolavalli, 2006b). These

²⁴ I.e. for a rose.

²⁵ Using cuttings produce genetic clones of the parent plant. The cutting may also be grafted into another rootstock.

²⁶ Out of 20 rose breeding companies, 11 are Dutch, three are French and others are British, Spanish and Ecuadorian firms (based on author's own market research and calculations).

²⁷ In 2016, only one breeding company did the actual breeding in Kenya.

²⁸ Mobydick is one of very few local flower varieties that are grown for commercial purposes (Bolo, 2006).

cuttings are further sold to growers in Kenya and other places worldwide. Some of the propagating companies use a method called top grafting (especially popular for roses), meaning that the cutting is grafted into another rootstock. Grafting provides the benefit of attaching different roots to plants to enable them to grow in and to cope better with different soil types and soil conditions. For roses, there are three main rose rootstocks in use (Natal Briar, Protatu and Protano²⁹). All three have been developed by the only rose rootstock breeder – a Dutch company called Plant Research Overberg (PRO) (Plant Research Overberg, 2018). For this technical and highly delicate process, propagating farms in Kenya need to feature high-tech equipment and work according to pre-developed and tested production systems. Technical knowledge necessary in this process is not, however, a limiting factor. It is therefore interesting to observe that while local Kenyan investors have been able to enter into the cut flower growing business, the young plant segment is somehow off their limits and remains dominated by the established European breeding companies (Evers, Opondo, Barrientos, & Krishnan, 2014; Rikken & Hulst, 2012; Research Team, 2017).

Other actors involved in the backward linkages of flower production are the input suppliers. These companies must deliver necessary infrastructure (like greenhouses and other tools), equipment and chemicals. The former are companies with Israeli origins, while the latter category is catered for by a number of Kenyan companies representing international brands. There is also one Kenyan company (linked to an American multinational grower) that develops and supplies farms with biological pest control solutions. As for the forward linkages, directly after being cut, flowers require an uninterrupted so-called cold chain, highly efficient freight transportation arrangements and mechanisms for rapid sales (CBI, 2005). The cut blooms are sorted by colour, quality and size and packed in boxes on the farm. Quality packaging is an essential factor, both in terms of presentation and protection. Packaging can be divided into sleeves and wraps in paper or plastic materials, and external packaging in boxes, up to the sealed pallet (Rikken & Hulst, 2012). Cardboard boxes are mostly supplied by a local company, the East Africa Packaging Industry (EAPI), while other materials, like flexible packaging (film on rolls, sheets and sleeves) and plastic rubber, are delivered by a number of local and international companies. Packed flowers are transported from the farm to the handling agent at the airport. Some larger farms own their own refrigerated trucks, some forwarders provide trucks for collecting the flowers (although it was reported that often smallholders may not be able to afford that) (Evers et al., 2014; Rikken & Hulst, 2012). The handling agents, with their own (cold) storage facilities near the Jomo Kenyatta Airport, take care of necessary export paperwork and deliver the flowers to the cargo planes. They even have a Kenya Plant Health Inspectorate Service (KEPHIS) representative on their premises to speed up the process of obtaining the necessary phytosanitary certificates. The flowers can be shipped in the cargo section of large passenger jets or in full cargo planes. While out of the country, the flowers can take (in principle) two routes: either via the Flora Holland Auction in the Netherlands or via direct selling.

Historically, the Dutch flower auction has been the most important channel through which flowers are distributed to European wholesalers and retailers and it retains this position today (Riisgaard, 2009a). However, within the last years, an increasing number of flowers are sold directly, mostly to large supermarket chains (CBI, 2005; Riisgaard, 2009a; Rikken & Hulst, 2012). In cases of direct sales, flowers are sent directly to the supermarket's handling agent and then to the supermarkets where final consumers purchase them. In cases of indirect selling through the Dutch auction, the flowers are first received by a handling agent at the Dutch airport. They are further processed by an importer,

²⁹ Protatu and Protano are two types of new PRO rootstocks introduced by Plant Research Overberg in 2016 (Own interviews, 2015).

who prepares them for auction. The flowers are taken out of their boxes and put in water vases, often with the addition of ‘flower food’ – a chemical solution that keeps them looking fresh longer. At the auction, the flowers are bought by a wholesaler who sells them to European retailers. They then sell them to the final consumers concluding the supply chain (Rikken & Hulst, 2012).

2.3 Institutional and political set-up of the Kenyan flower sector³⁰

Kenyan policies have long played an important role in shaping the agricultural sector. In the first ten years after its independence (in 1963), Kenya pursued a mixed economy approach and adopted openness to foreign investment that was more liberal than many other African countries. The pragmatic agricultural policy and political stability made Kenya a relatively attractive place for investors. During these initial years, Kenya paid considerable attention to smallholders, although mostly in the tea and coffee sector³¹ (Duncan, 1982; Swamy, 1994). Economic and political circumstances deteriorated by the late 1970s due to the oil crisis that created balance of payments problems and raised the cost of international trade, particularly affecting the coffee and tea sectors. Tensions intensified in 1982 after a failed coup attempt. The coup caused capital flight before the economy could fully recover from the second oil shock at the beginning of 1979 and the collapse of the East African Community in 1977, which initially provided an export market for Kenyan goods, and the end of the coffee boom. The signals to the domestic and international investors were mixed. The 1980s marked the beginning of Kenya’s structural adjustment programme that continued for the next 20 years (Swamy, 1994).

The initial economic slowdown due to austerity measures led to a short economic recovery but the share of investment as a share of GDP continued to fall throughout the decade. Kenya fell into recession again in 1992–93 with inflation hitting 55 per cent. Balance of payments support from donors was suspended from 1991 to 1993 because of the slow pace of reforms, new political problems, and concerns over corruption. In response, a new round of reforms was introduced but by 1997 the situation was again deteriorating. The International Monetary Fund suspended its support, and the World Bank stopped lending Kenya money. Civil unrest grew and put Kenya’s long record of political stability in serious jeopardy. In 1998, Kenya had one of its worst economic performances with a GDP growth reaching near zero (0.475%) (The World Bank, 2018).

President Mwai Kibaki embarked on wide ranging reforms after taking over from President Moi in 2002, leading to a three per cent growth in 2003 and an average acceleration of 5.8 per cent over the next four years. Key to the revival was the Economic Recovery Strategy of 2003 and the Vision 2030 projects, which placed infrastructure at the centre of building a modern economy. However, the negative economic effects of the post-election violence that broke out after the 2007 general elections, together with drought and the global financial crisis, brought Kenyan economic growth down to less than 2 per cent in 2008. However, by 2010, surprisingly, the Kenyan economy had recovered and achieved an impressive growth of 7.3 per cent. Since then, the annual economic growth has stabilized at about 5 per cent. The new Constitution promulgated in 2010 introduced

³⁰ More details on that topic can be found in Annex 1: Policy, Legal and Regulatory Framework, Annex 2: Historical overview of Kenya’s Policies and Programmes (1964 -2015), with the main focus on agriculture, and Annex 3. Key Sector Stakeholders.

³¹ “The smallholders’ share of coffee and tea production increased from practically nothing in 1955 to 40 per cent and 70 per cent respectively in the early 1980s” (Swamy 1994: 197).

devolution in the governance structure of the country. In 2015, Kenya attained lower-middle income status and became the fifth-largest economy in sub-Saharan Africa. Under President Uhuru Kenyatta's Jubilee Alliance government, which took office in April 2013, agriculture has not been particularly promoted. Thus, the performance of the agricultural sector has not been impressive in the first four years of Kenyatta's government. Despite the overall decline in the export/GDP ratio since independence, the floriculture sector has performed strongly over the years, indicating that the sector might have a different development path, one independent from the state (Bedasso, 2012; Irungu, 2013; Mitullah et al., 2017; Ochieng, 1992; Rikken, 2011).

2.4 Floriculture sector in Kenya today

In 2016, floriculture in Kenya earned Ksh 70.8 billion³² (KFC, 2017a). It is Kenya's fourth top foreign exchange earner after remittances, tea and tourism (Mwaniki, 2017). Flowers are grown predominantly for export. Flowers that do not meet the international export standard find their ways onto the local market. The domestic market, however, remains small (Wijnands, 2005). Kenya is the lead exporter of cut flowers to the European Union (EU) with a market share of 38 per cent (KFC, 2017a). Until the 1990s, Germany was the largest export market for Kenya's flowers,³³ but this has been taken over by the Netherlands (Dolan et al., 2002; Wijnands, 2005). Today, other main European Union markets, after the Netherlands, are: the United Kingdom, Germany, France and Switzerland. Approximately 50 per cent of exported flowers are sold through the Dutch Auctions, although direct sales³⁴ (especially to the UK) are also important and increasing (Riisgaard, 2009a; Rikken & Hulst, 2012).

Roses constitute 75 per cent of the overall flower production, but we can observe a (re-)growing number of smallholder flower farmers and companies who source the (mostly summer) flowers from them. The main flower growing areas are concentrated around Nairobi and its environs, Mount Kenya, and the Central and Rift Valley, with the biggest production taking place around Lake Naivasha (KFC, 2017a).

Since its inception, Kenya's cut flowers exports haven't recorded almost uninterrupted growth in volume and value (Figure 1). In 1978, the export volume was 3,000 tons. Since then, the sector has grown by, on average, 16 per cent per year in terms of volume and 25 per cent in terms of value of production. In 2016, Kenya exported 133,658 tons of flowers³⁵ (KFC, 2017a). Only twice, in 1998 and 2014, was production lower than that of the previous year. In 1998, several countries in East and Southern Africa, including Kenya, were seriously affected by the El Niño weather conditions in late 1997 and early 1998. The broad agricultural sector recovered in the second half of 1998, but it was not enough to offset the poor performance earlier that year (Brinkman & Gray, 1999). In 2014, agricultural producers suffered losses due to currency fluctuations and delays in the renewal of the European

³² 100Ksh = ±1 \$; 100Ksh = ± 0.80 €.

³³ As a result of an important joint venture between the Kenyan producer Sulmac and a major German importer, Florimex. The termination of the exclusive contract ended Germany's favourable market position (Wijnands, 2005).

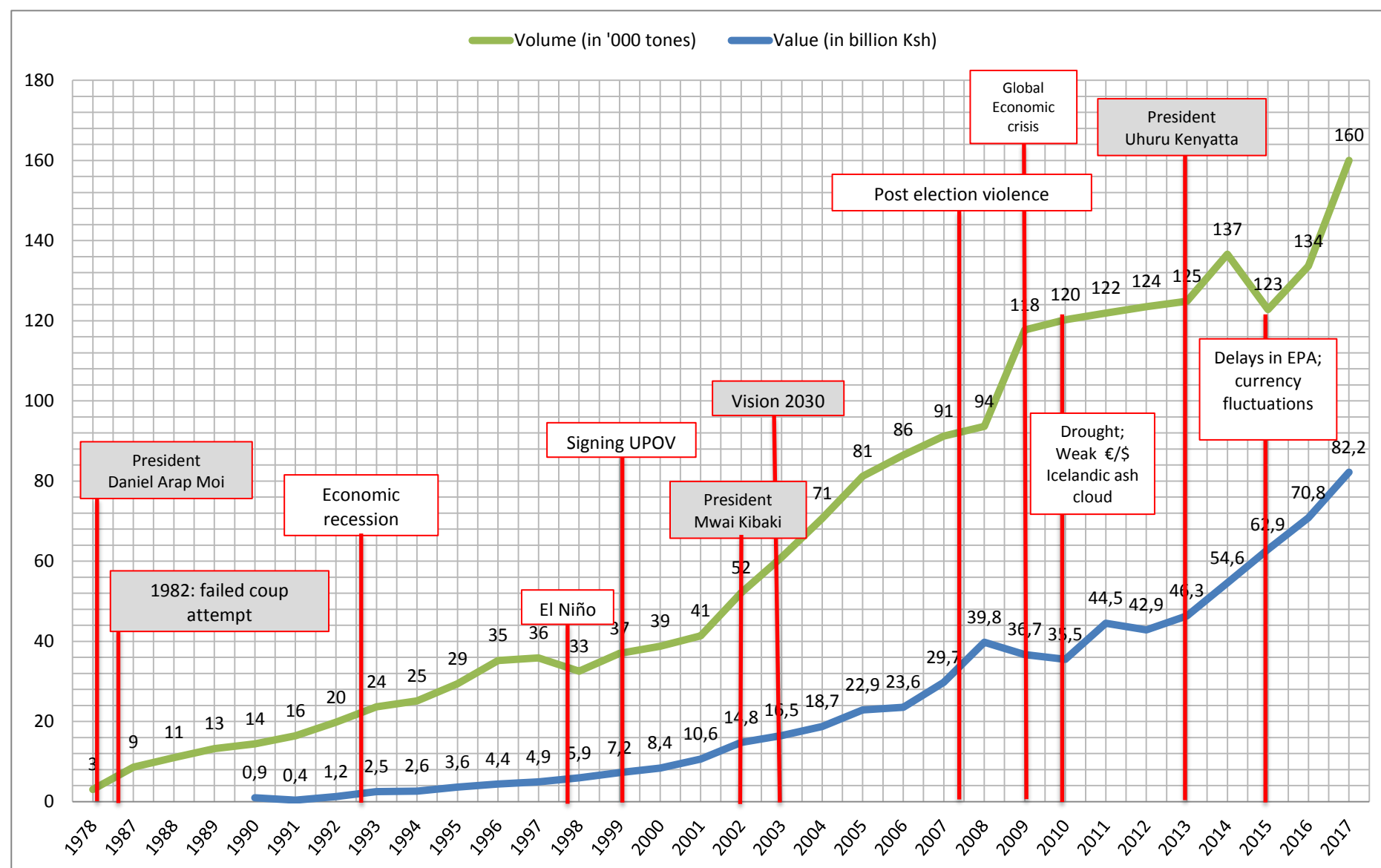
³⁴ Mostly to the UK, but supermarkets in the Netherlands are becoming an increasingly important sales channel for flowers as well, with an increase in their market share from 18 to 25 per cent between 2010 and 2015 (Potjer et al., 2015).

³⁵ HCD recorded export volume in the first six months of 2017 was 71,951.41 tonnes. This number already shows an increase in recorded volume compared to the previous year.

Partnership Agreement (EPA) – a critical trade agreement between Kenya/EAC and the EU. Without the EPA in place, Kenyan export to the EU would be subjected to high tariffs. Kenyan flowers would consequently become less competitive in the already saturated market. The EPA was finally ratified in September 2016 (Pichon, 2018). The currency volatility was an added challenge that year. The fall in the shilling-euro exchange rate (from Ksh120:€1 to Ksh100:€1) over the course of a year had hurt export earnings from the EU. The Kenyan shilling was also depreciated against the US dollar. As many floriculture inputs are purchased in Ksh, its depreciation led to a steep increase in production costs for the farms (Oxford Business Group, 2016). Another critical moment for the industry came in 2008, when the economic effects of the violence that broke out after the 2007 general election, together with drought and the global financial crisis, negatively affected the flower production.³⁶ As a global business, the sector was hit by the low prices, a result of the global economic crisis of 2009. In 2010, Kenyan agriculture suffered from a prolonged drought period (that had already begun towards the end of 2009) and flower airfreight was also affected, first in April of that year by the Icelandic ash cloud and then again in December when heavy snow in major European destinations caused further flight delays and cancellations (Kagwe, 2011). The weakening euro against the dollar affected the value of the overall production for two consecutive years: 2009 and 2010 (Oxford Business Group, 2016; Rikken, 2012). Despite some of these challenges, performance of the floriculture sector has, overall, been strong over the years.

³⁶ Naivasha was one of the affected areas with economic ethnic clashes between the Kikuyus and the Kalenjin.

Figure 1. Growth of Kenyan cut flower exports



Source: Compiled and corrected for inconsistencies by the authors based on (AFFA, 2014; Bolo, 2006; Harris, 1992; HCDA, 2010, 2013; KFC, 2017a; Mitullah et al., 2017; Schapiro & Wainaina, 1989; Tharau, 2003; The World Bank, 2009a; Westerman, Splinter, & Mukindia, 2005; Whitaker & Kolavalli, 2006b).

Floriculture has accounted for over 65 per cent of the new jobs created between 2010 and 2015 in the Kenyan agricultural sector (Mitullah et al., 2017). The Kenya Flower Council estimated that, in 2010, the sector generated about 90,000 jobs directly at flower farms and about 500,000 indirectly in the value chains and related activities (KFC, 2017a). Although these estimates may be slightly out of date, they demonstrate the significance of the sector. It is worth repeating that there are three main activities that take place ‘on the farm’: breeding³⁷ (developing new varieties), propagation (multiplying by any process of natural reproduction from the parent stock) and growing plants. Growers provide the highest number of employment opportunities, mostly for women (Kirigia et al., 2016; Opondo, 2002; Potjer, Bergman, Scholte, & Bani, 2015). Due to the nature of their work, breeders and propagators hire less people. However, breeders and propagators contribute substantially to indirect employment creation, as without the planting materials, the growers would not be able to generate the current levels of employment, neither would the companies in the forward value chain. A number of local and international companies also operate in the flower value chains that are responsible for the remaining indirect job posts.

In 2016, more than 3,000 hectares, divided into 190 flower farms owned by 145 companies³⁸ (medium enterprises and large multinationals), were devoted to commercial floriculture. Their farms range from three to 250 hectares. There are also approximately 2,500–5,000 smallholder flower farmers (Mitullah et al., 2017; Riisgaard, 2009b). The smallholders are typically organized into outgrower schemes by larger exporter/producers and exporters (Evers et al., 2014), but the exact number of such active schemes and their production remains unknown. Out of 190 farms bigger than three hectares, 17 per cent (33 companies) can be considered Dutch (Table 1). The expression ‘can be considered’ is used deliberately, as actually all the companies are registered as Kenyan. For the purpose of this study, however, we ‘consider’ a company Dutch when capital and management come from the Netherlands; or when there is an active link with a Dutch ‘mother company’.

Table 1. Flower companies in Kenya

	Number of all companies	Number of Dutch companies	% Dutch
Grower	135	19	14%
Grower, propagator	18	0	0%
Propagator	1	1	100%
Breeder, Propagator	3	3	100%
Breeder	9	7	78%
Grower, sourcing	5	0	0%
Sourcing	4	2	50%
Flower broker	11	1	9%
Small-scale grower	4	0	0%
Grand Total	190	33	17%

Source: Own calculations based on the desk research and field data (information for June 2016).

³⁷ Technically, breeding (crossing) takes place in the laboratory; however, new varieties are further planted and tested on the breeder’s farm. The farm also acts as a showroom for potential buyers who can come and choose directly from the variety under trials.

³⁸ Own calculations based on the desk research. As the sector is very dynamic, mergers and/or takeovers are quite frequent.

Dutch companies dominate the breeding and propagation activities within the sector. Today, out of 135 flower growers, only 19 are Dutch. This is contrary to popular belief, that mostly Dutch companies grow flowers in Kenya. Nevertheless, as discussed, the composition of Kenya's cut flower industry has changed considerably during the last thirty years. As the initial development was driven by both European investors and smallholder local farmers, gradually multinational companies, but also Kenyan public officials and entrepreneurs, started investing in the sector as well. The medium- and large-scale operations became more common and there was a visible shift in the flower production from carnations in the 1970s to roses as of the 1990s. These changes were made at the expense of the local smallholder farmers, who had limited access to improved (rose) varieties³⁹ and could not afford to upgrade their production with necessary infrastructure (i.e. greenhouse) and other sophisticated technologies (Bolo, 2006; Harris, 1992; Whitaker & Kolavalli, 2006b). Modern farms increasingly use new technology, adopting solutions such as: computerized drip irrigation and fertigation systems,⁴⁰ computerized greenhouse ventilation systems, net shading, pre-cooling and cold storage facilities, fertilizer recycling systems to prevent wastage, wetlands for waste water treatment, artificial lighting to increase day length, grading/packaging sheds, and refrigerated trucks (German Federal Ministry for Economic Affairs and Energy, 2015).

Climate conditions and altitude make Kenya an ideal environment for growing high quality flowers and particularly unscented roses (KFC, 2017a). However, these are not the only factors attributed to the success of Kenya's cut flower industry. Van Liemt (1999: 16) distinguishes ten such factors:

1. Good physical conditions: high light intensity, abundant water, clean soil (or the use of hydroponics); good climate.
2. Availability of appropriate seeds and planting material. The country being a member of the International Union for the Protection of New Varieties of Plants (UPOV),⁴¹ and the knowledge of the consumers' preferences in the destination markets.
3. Capital for investments and working capital.
4. Productive and skilled labour.
5. Expertise in growing techniques.
6. Good management and organizations.
7. Access to pesticides and other chemicals.
8. Energy for heating.
9. Adequate and developed infrastructure, including logistic support.
10. Quality consciousness and adhering to high quality standards all along the production and post-harvest chain. Cut flowers have a highly perishable nature and the deterioration starts at the moment of harvesting. Hence the importance of adequate post-harvest treatments and an efficient network of handlers.

Finally, international trade arrangements, such as the Economic Partnership Agreement (EPA) that permits an easy access of Kenyan export products into the (European) markets are also extremely important (Rikken, 2011; Van Liemt, 1999).

³⁹ During some of the interviews, it was confirmed that growing the right rose varieties is one of the most important factors for successful commercial rose growing.

⁴⁰ Fertigation is the injection of fertilizers, soil amendments, and other water-soluble products into an irrigation system (Wikipedia, 2018).

⁴¹ See the section on the cut flower value chains for more details.

2.5 Labour issues in the flower sector

Floriculture is a labour intensive industry and, consequently, a sector generating much-needed employment opportunities, often for unskilled female workers (Evers et al., 2014; Kirigia et al., 2016; Mitullah et al., 2017; Mlynska et al., 2015). Kenyan unskilled labour is considered more productive compared with other countries in East Africa (Evers et al., 2014) and from the European perspective, it can be perceived as relatively cheap (Rikken, 2011). Despite being one of the most codified industries in the world (Dolan & Opondo 2005; Lowthers 2015; Riisgaard 2007; Wijnands 2005; see also Annex 4: Key quality standards in Kenya's floricultural sector), the working condition and labour standards in the industry have continuously been a subject of debate. The peak of the sector's criticism occurred in the 2000s and early 2010s. Among the most recurrent issues that emerged in the literature are suboptimal employment conditions (low [non-living] wages, excessive overtime, lack of contracts, employment insecurity, lack of maternity leave, unfair dismissal, high proportion of casual workers), poor health and safety standards (chemical exposure, HIV/AIDS prevalence), and recurring social issues (sexual harassment, discrimination, gender inequity, lack of freedom of association, limited workers' participation in the trade union and in development (or review) of the codes of standards, lack of effective communication between the employer and employees among others) (Barrientos, Dolan, & Tallontire, 2001; Barrientos & Smith, 2007; Dolan & Humphrey, 2000; Dolan & Opondo, 2005; Dolan et al., 2002; Evers et al., 2014; Gibbon & Riisgaard, 2014; Hale & Opondo, 2005; KHRC, 2012; Leipold & Morgante, 2013; Loukes, 2008; Mlynska et al., 2015; Nelson, Martin, & Ewert, 2007; Ouma, Feyter, Haan, & Stichele, 2008; Riisgaard, 2007; Smith et al., 2004). As a result of numerous media campaigns and increased consumer pressure, labour conditions in the sector have improved substantially within the last decade (Evers et al., 2014; Gibbon & Riisgaard, 2014; Hale & Opondo, 2005; Loukes, 2008; Nelson et al., 2007; Riisgaard, 2007; Vasagar, 2006; Wilshaw, Sahan, Boyle, Knaggs, & Neil McGregor, 2013). However, there is still more to be done.

The improvements in the sector can be attributed to the large-scale implementation of the code of conducts, international certification standards and continuously re-negotiated Collective Bargain Agreement (CBA) by mostly medium- and large-scale companies. Certifications are important for the flower growers as they allow them to access international markets. It is argued that the (voluntary) codes and certifications did indeed contribute to the improved working organisation (Riisgaard & Gibbon, 2014) but did less to address the underlying global structure of the sector and its value chain. Firstly, it is recognized that the Kenyan flower industry uses too many certification labels, mostly with overlapping requirements. That leads to higher costs and a lack of clarity to the customers (Blowfield, 1999; Hale & Opondo, 2005). Furthermore, the codes tend to be heavily influenced by the northern norms and key stakeholders in the sector, without (or with very limited) participations of the workers themselves (Dolan & Opondo, 2005; Dolan et al., 2002; Hale & Opondo, 2005; KHRC, 2012). Finally, most of the certifications are designed for medium- and large-scale production and, consequently, create a market entry barrier for smallholder flower growers⁴² (English et al., 2006; Fintrac, 2010; PASGR and CAFE, 2016; Rikken & Hulst, 2012).

Most standards address both environmental and social aspects of the operations. However, in practice, the latter has proved much more difficult. Consequently, the concerns and expectations of the workers themselves have been addressed to a limited extent (Barrientos & Smith, 2007; Dolan & Humphrey, 2000; Dolan et al., 2002; Lowthers, 2015). Furthermore, standards failed to challenge the underlying power relations within the sector's (international) value chain, thus maintain the existing

⁴² Read more about the challenges for smallholder flower production in sub-chapter 2.6 below.

inequalities (Dolan et al., 2002; Gibbon & Riisgaard, 2014; Hale & Opondo, 2005; Kuiper & Gemählich, 2017; Nelson et al., 2007; Riisgaard, 2007, 2009b). However, it is hard to expect that the purely voluntary standards would have the capacity to really challenge the (long) existing global power relations without the governments' interventions. With regard to Kenya, the recently updated and enforced national horticulture standard (KS 1758 Part 1) for flowers and ornamentals⁴³ is a promising step towards a mandatory push for better, sector-wide agricultural practices in the country.

Despite these positive developments and major improvements compared to the 1990s, more recent literature and media reports focus on the issues that require further amelioration. One of the most prevailing topics is the issue of the living wage still not being achieved (Anker & Anker, 2014, 2017; *Floral Daily*, 2018; HIVOS, 2018; Keter, 2017; Kirigia et al., 2016; Mlynska et al., 2015; Potjer et al., 2015; Renon, Rusman, Zwart, Martinus, & Michel Scholte, 2018). A living wage should be "sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, healthcare, transport, clothing and other essential needs including provision for unexpected events" (Anker & Anker 2014: 6). In their recent study for the Global Living Wage Coalition Anker and Anker (2014, 2017) estimated the living wage for the flower sector in Kenya to be US \$135 per month for the (rural) Mount Kenya area and US \$216 per month for the (urban) Naivasha region (Global Living Wage Series, 2016; Renon et al., 2018). It has been reported that the overall labour costs have significantly increased within the last ten years (Anker & Anker, 2014). Potjer et al. (2015) reported that despite having a relatively small living wage gap at many farms, even the certified flowers companies failed to reach the living wage level.

The Kenya Plantation and Agricultural Workers Union (KPAUW) negotiate wages in the flower sector on behalf of the employees from 66 flower farms (*Daily Nation*, 2017; Kajilwa, 2016; Njoroge & Wanjiru, 2017). Most farms allow or even encourage unionization, yet there are cases where they may discriminate against unionized employees (Mlynska et al., 2015; Own interviews, 2015). For these farms, a Collective Bargain Agreement (CBA) stipulates the basic wage rates, other provisions (such as housing, transport, on-site clinics, schooling and child care), cash allowances, working hours, leave and other benefits. The basic salary rates,⁴⁴ as per CBA, are higher than the legal minimum wages for the agricultural sector (Anker & Anker, 2014; Dolan et al., 2002; Hale & Opondo, 2005; Kirigia et al., 2016; Potjer et al., 2015) and some farms reportedly pay wages above the minimal agreed (Anker & Anker, 2014; Potjer et al., 2015). Generally, there is also a little difference in wages between permanent, seasonal and casual employees, although seasonal and casual workers are less costly (Ouma et al., 2008). The last ten years saw a nominal wage increase as a result of new employment legislation, unionization, civil society campaigns and certification schemes. However, due to inflation, the real wages have declined, while the labour costs have significantly increased for the employers in flower sector (Anker & Anker, 2014; Evers et al., 2014).

Unionization and collective bargaining agreements (CBAs) are becoming more common in the Kenyan floriculture industry (Evers et al., 2014; Wilshaw et al., 2013). On a daily basis, the trade

⁴³ KS 1758 Part 2 addresses standards in the fruits and vegetables sub-sector. In addition, Kenya Horticultural Council (KHC) has been officially launched in 2017, with an objective to support the industry to comply with various international market standards and particularly, with the implementation of the Kenyan national horticulture standards for flowers and ornamentals (KS 1758 Part 1) and fruits and vegetables (KS 1758 Part 2).

⁴⁴ Within a company, salaries also increased with length of employment.

union deals mostly with cases of wrongful terminations, issues of too high targets and underpayment (Research Team, 2017). However, the unions remain not without criticism. KPAUW is considered to have a strong hierarchical and top-down controlled structure (KHRC, 2012; Riisgaard, 2007, 2009b), with poor governance, either caused by limited resources at branch level, demoralized officials, or simply lack of accountability on workers' funds (KHRC, 2012). Corruption and nepotism in the high ranks of the flower industry trade union, negatively impacts on inclusiveness and the union's representation of the interests of all the members (Kazimierczuk, 2016). The union was also criticized for representing the interests of the government rather than its members (KHRC, 2012). Furthermore, despite an increase in union membership in recent years, the marginalized groups are not properly represented. This includes women who are underrepresented in the union structure and leadership. Ironically, women constitute the majority of workers in the sector (Dolan et al., 2002; Hughes, 2001; Loukes, 2008; Riisgaard, 2009a; Wilshaw et al., 2013). All the factors above pose a threat to ensuring a real improvement for workers in the sector.

Among other problematic issues that remain on the agenda are the cases of sexual harassment, relations with supervisors, lack of adequate housing for the workers who are mostly migrants and job insecurity. Sexual harassment used to be common in the sector, especially by male supervisors (Dolan et al., 2002; Hale & Opondo, 2005; KHRC, 2012; Leipold & Morgante, 2013; Mlynska et al., 2015; Wilshaw et al., 2013). Situations where women workers exchange sex for their jobs, engage in transactional sex relationships with senior male managers at the farms, and eventually ending up doing street-based sex work continue to be reported (Lowthers, 2015). The exposure of many cases by a number of reports, as well as Kenya's 2007 Employment Act, which mandated flower farm companies to implement policies for handling harassment, led to adaptation of gender-specific policies and dismissal of the implicated male employees on some farms (HIVOS, 2013; Lowthers, 2015). Recent years have seen a significant reduction of such cases, although the problem has not been fully eliminated (*Business Daily*, 2017; Evers et al., 2014; Kelly, 2017; Keter, 2017; Lowthers, 2015).

Problematic relations between workers and supervisors have persisted since the early 1990s, although they have now significantly reduced (Evers et al., 2014). Apart from problems with sexual harassment, some workers felt that some supervisors based their promotion decisions on tribalism or bribery (Wilshaw et al., 2013). Others are bribed in exchange for the job (Own interviews, 2016). Nevertheless, the emergence of laws that protect women against discrimination in the workplace and promoting equal opportunities, internal welfare committees, anti-sexual harassment policies and trade unions contributed to substantial reduction of abusive practices (Wilshaw et al., 2013).

Since the adaptation of the 2007 Employment Act, permanent employees are entitled to annual leave, sickness benefits, pension contributions, housing (or housing allowance), three months of paid maternity leave plus one month of paid annual leave for women and 14 days of paternity leave for men. Women workers have the right to breastfeeding time for lactating mothers and usually lighter duties during pregnancy (Evers et al., 2014). However, enforcement of these laws appears to be mixed. In compliance with national law and codes of conduct, flower farms are also required to either provide housing or a housing allowance for their employees (Lowthers, 2015). Lack of adequate housing for the workers is becoming increasingly problematic. Seventy per cent of (female) employees are migrants from all parts of Kenya, who are single women with dependent families (Dolan et al., 2002; Gemählich & Kuiper, 2017; Kuiper & Gemählich, 2017; Lowthers, 2015; Wilshaw et al., 2013). The influx of labour in the flower cultivation areas led to an increase in

informal settlements with poor (if not inadequate) living conditions (Gemählich & Kuiper, 2017; Lowthers, 2015). Furthermore, the quality of childcare available in the proximity is often very poor, which results in high rates of negligence and abuse of children (Gemählich & Kuiper, 2017; Wilshaw et al., 2013).

Job insecurity persists,⁴⁵ although a much higher proportion of workers is employed on a permanent basis (Evers et al., 2014; Kuiper & Gemählich, 2017; Mlynska et al., 2015). It is probably not possible to eliminate temporary employment completely, as the peaks of production in the sector are concentrated around certain times of the year. The power of workers is generally weak, especially that of unskilled workers, who remain marginalized and vulnerable (Wilshaw et al., 2013). There is low awareness among workers about their rights to join the union and about the potential benefits of unionization (Wilshaw et al., 2013). It is rather common that companies do not involve workers in the drafting of their internal policies and also do not effectively communicate them to employees (KHRC, 2012; Own interviews, 2016; Smith et al., 2004). Despite the many improvements in the sector, much depends on the willingness and the ability of the company directors and managers to meaningfully implement the existing standards.

2.6 Smallholder flower production

Smallholder flower production is estimated to contribute about six per cent of the flower production for export and eight per cent of the total value of the flower exported. In 2014, it was worth approximately Ksh 4,5 bln.⁴⁶ The Horticultural Crops Directorate (HCD) categorizes small-scale farming as that done on a plot of land less than four hectares (Chege, 2012). Kenya Flower Council estimates that there are approximately 5,000 smallholder farmers involved in flower growing today.⁴⁷ Other sources indicate that their number can be between 2,500 and 10,000 (Mitullah et al., 2017; Mwangi, 2017; Whitaker & Kolavalli, 2006b). It is not possible to get exact numbers because such statistics are not collected.⁴⁸ Smallholder flower farmers grow predominantly summer flowers,⁴⁹ often older non-UPOV varieties, as these types of flowers do not require payment of royalties⁵⁰ and can be grown in an open field with limited technological and capital investments (Bolo, 2006; Mitullah et al., 2017; Mwangi, 2017; Whitaker & Kolavalli, 2006b).

The smallholder flower production in Kenya started in the late 1970s, when the government was trying to indigenize the industry, largely seen as being dominated by foreigners, through a public-private donor programme initiated by Updown, Sulmac, UNDP, FAO and HCDA (now HCD) (Muthoka & Muriithi, 2008; Mwangi, 2017). Back then, the sector was based on the production and export of

⁴⁵ The Employment Act (2007) stipulates that employees who work consecutively for three months on a casual basis should be contracted as permanent (Evers et al., 2014).

⁴⁶ Own calculation based on data provided by Fisheries and Food Authority Agriculture (2014).

⁴⁷ Interview with a KFC employee in 2016.

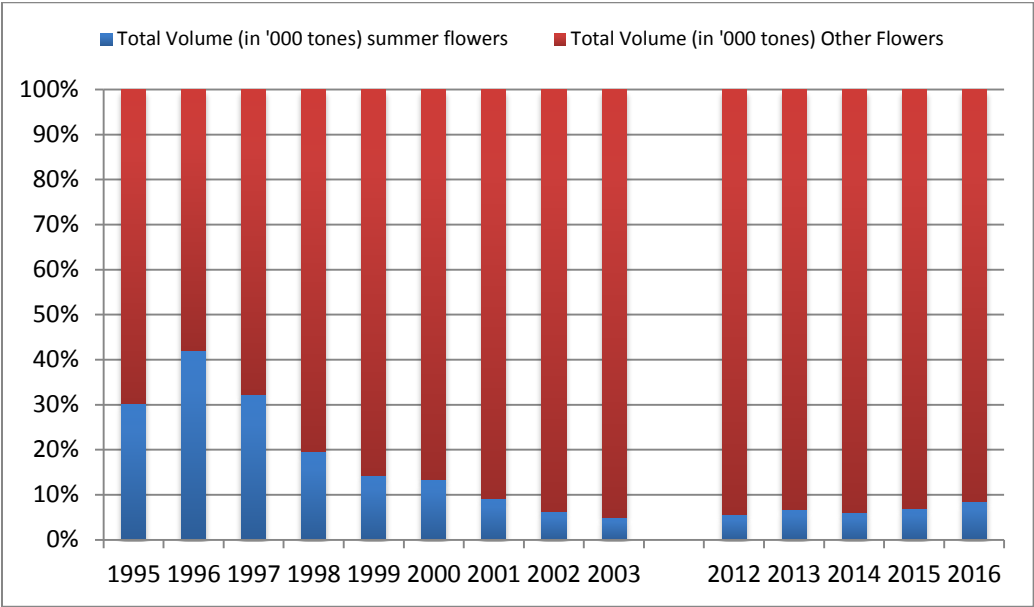
⁴⁸ The last comprehensive smallholder survey was done in 2010 by Fintrac (2010).

⁴⁹ 'Summer flowers', the general name given to annual species and bulbous perennials traditionally grown during summer in northern Europe, they include: *Alstroemeria* spp., *Eryngium* spp., *Ornithogalum saundersiae* (commercially known as "Arabicum"), *Polianthes tuberosa*, *Ornithogalum thyrsoides* (Ornis), *Cyperus alternifolius*, *Rumohra abiantiformis*, *Mobydick-Asclepias* sp., *Molucella*, Lilies, *Agapanthus* and *Limonium sinuatum*, just to mention a few (Muthoka & Muriithi, 2008). Some of these varieties are used as additions to a bouquet of greenhouse varieties such as roses or chrysanthemums (Mwangi, 2017).

⁵⁰ Although it also often means lower prices on the market (Whitaker & Kolavalli, 2006b).

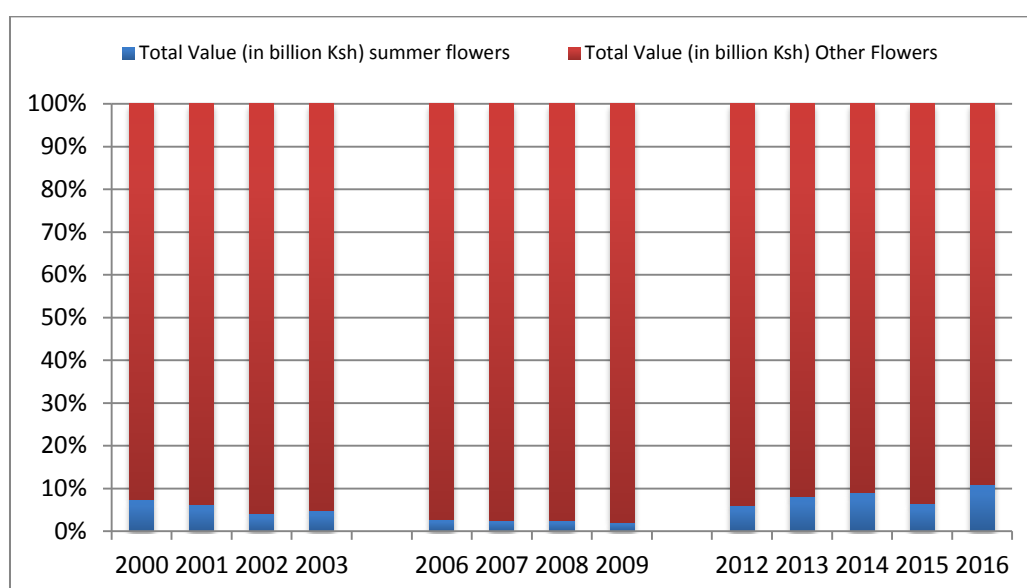
carnations (Whitaker & Kolavalli, 2006b). Smallholder farmers often cooperated within existing outgrowing schemes. Outgrower schemes are networks of unorganized smallholder farmers who supply flowers to export companies, which are further responsible for the coordination of supply, logistics and marketing to the Dutch flower auction (Mwangi, 2017). The outgrower production was significant during the late 1980s; however, since the mid-1990s, it went into decline as a result of stricter implementation of breeders rights on Alstroemerias, decline in market for open field low-value crops and the shift towards rose production (Figure 2) (Kimunya, 1995; Westerman et al., 2005; Whitaker & Kolavalli, 2006b). So far, smallholders’ participation and contribution to the overall production and value of the exported flowers is marginal (Figure 3) (Bolo, 2006, 2008, 2010; Bolo, Muthoka, Washisino, Mwai, & Kisongwo, 2006; Dolan et al., 2002; Fintrac, 2010; Steve Jaffee, Henson, & Rios, 2011a; Muthoka & Muriithi, 2008), although within the last few years some signs of their renewed involvement in the sector have been observed (Rikken & Hulst, 2012).

Figure 2. Share of the smallholder summer flowers in the flower export production (1995-2014)



Source: Own calculations based on (AFA/HCD, 2016; AFFA, 2014; Fintrac, 2010; Muthoka & Muriithi, 2008; Whitaker & Kolavalli, 2006b).
 Note: For years 1995-2000, the calculations include the production of only Alstroemeria, Limonium, mixed flowers and cut foliage.

Figure 3. Share of the smallholder summer flowers in the value of flower export (2000-2014)



Source: Own calculations based on (AFA/HCD, 2016; AFFA, 2014; Fintrac, 2010; Muthoka & Muriithi, 2008; Whitaker & Kolavalli, 2006b).

Smallholder flower production represents a real opportunity for the poor. Inclusion and integration of marginalized smallholders in agricultural production is being seen as a potential engine for large-scale poverty reduction and food security in most agriculture-based economies (English et al., 2006; Rikken & Hulst, 2012; Salami, Kamara, & Brixiova, 2010; The World Bank, 2008, 2009b; Zylberberg, 2013). Nevertheless, in Kenya so far, with a limited involvement of smallholders in floriculture, the industry's impact on poverty reduction and food security has primarily been from employment in medium- to large-scale flower farms⁵¹ and in the companies in the supply chain (Whitaker & Kolavalli, 2006b; Zylberberg, 2013).

Although with limited participation, Kenya is the only country in the world that actually has smallholders growing cut flowers for export (Mwangi, 2017). Smallholders venturing into floriculture are generally experienced farmers who decided to grow cut flowers as a diversification strategy from other (high value) crops they grow (Mwangi, 2017). Floriculture is generally perceived as profitable for the smallholders and makes them financially more secure and, consequently, food secure (Fintrac, 2010; Kirigia et al., 2016; Mwangi, 2017). Nevertheless, there are a number of challenges that these farmers face while working in the sector.

Lack of access to the international export market is the major challenge for the smallholders. They are constrained due to strict phytosanitary standards, high freight costs, and lack of knowledge of these markets among others. Furthermore, to be profitable in the sector, there is a need to produce large volumes of flowers. Therefore, most of the smallholders decide to sell their flowers through

⁵¹ A survey carried out by the Institute of Development Studies (McCulloch & Ota, 2002) concluded that households in Kenya involved in export horticulture (entrepreneurs, but mainly labourers in production and post-harvest handling) are better off than those that are not, particularly in rural areas. The results indicated that enabling more households to participate in the sector could substantially contribute to poverty reduction in both urban and rural areas (Westerman et al., 2005).

intermediaries who are either specialized export companies, or medium- and/or large-scale exporters who also grow and export their own flowers. In most cases, the exporters provide extension and technical support to the smallholders (Bolo, 2006, 2008; Mitullah et al., 2017; Rikken & Hulst, 2012). Such partnerships have both advantages and disadvantages. On the positive side, the smallholders gain new knowledge of how to improve their flower production, their business and marketing skills, and how to access the international markets. Working through established outgrower schemes or with bigger companies that source the flowers significantly reduces costs of doing business. The intermediary takes care of the costs related to access to cold-storage facilities and transport, which are substantial, yet critical in maintaining the required quality of the product if it is to be sold in European markets (Rikken & Hulst, 2012; Whitaker & Kolavalli, 2006b). However, reported challenges related to work with middlemen include low buying prices and failure to honour agreements (failing to collect produce) leading to huge losses by the farmers (Bolo, 2006). Additionally, the exporters/intermediaries have a tendency to protect the activities that generate premium revenues by withholding value addition and flower processing knowledge and, consequently, limiting smallholder farmers' ability to move beyond production into value addition activities or trade, as this is where they might be in direct competition with the export firms (Bolo, 2010; Mwangi, 2017; Rikken & Hulst, 2012).

A few farmers have managed to evolve beyond the outgrower schemes and open their own companies that export to the auction or directly to supermarkets (Mwangi, 2017). The auction works well for smallholders because it absorbs all supply irrespective of volumes and varieties and has minimal restrictions in terms of entry certifications (English et al., 2006; Mwangi, 2017). 'Direct' markets are more challenging to access. It requires the flower supplier to consistently produce a specific (often high) volume of flowers and to meet the supermarket's own certification standards (Mwangi, 2017; Rikken & Hulst, 2012). As the flower smallholding open-air production relies heavily on rain, its unpredictable patterns cause fluctuations in the number of flowers produced per season and consequently makes it difficult for the smallholders to assure consistent quality and quantity (Fintrac, 2010; Muthoka & Muriithi, 2008; Rikken & Hulst, 2012). Furthermore, smallholders reportedly face challenges in implementing international standards and gain internationally recognized certification, as those are designed for medium- and large-scale productions, making it almost impossible to apply in the case of small-scale production⁵² (English et al., 2006; Fintrac, 2010; PASGR and CABI, 2016; Rikken & Hulst, 2012). KFC has recognized the issues and has been working towards a greater inclusion of the smallholders by developing a Smallholder Code of Practice⁵³ that will provide guidelines for the smallholders to adhere to in order to facilitate their access to competitive and highly regulated international markets, yet it has not yet been scaled up on the

⁵² KFC is supportive of the further development of the smallholder flower production and they have recognized this issue and have been working towards a greater inclusion. The work has started to develop a Smallholder Code of Practice that will provide guidelines for the smallholders to adhere to in order to facilitate their access to competitive and highly regulated international markets.

⁵³ Its origins can be traced back to 2001, when KFC, supported by the UK Department for International Development, started a two-year project to train smallholders to minimize pesticide use, minimize worker exposure to chemicals, and deal responsibly with the disposal of waste chemicals and organic materials. FAO has also funded research to reduce the use of dangerous chemicals. In 2006, a three-year programme initiated by the Dutch Centre for the Promotion of Imports from Developing Countries (CBI) and implemented through the KFC aimed at capacity building of the smallholder flower farmers to compete in the export markets. It included training on social, environmental and quality requirements demanded by international buyers (*Daily Nation*, 2006; Rikken & Hulst, 2012). The Kenya Horticulture Development Programme (KHDP) is working with farmers in the Central and Rift Valley provinces, providing them with technical assistance and market linkages for their products (Rikken & Hulst, 2012).

national level. Finally, the flowers need to have access to relevant information, inputs and financing that will assist in making the decisions on what to produce and when to produce, although so far access to all three aspects has been limited (Bolo, 2006; Kimenya, 1995; Muthoka & Muriithi, 2008; Van Der Velden et al., 2017).

Access to quality input is also problematic. Bolo (2005) noted that the sector relied heavily on imported flower varieties such as roses, carnations, lilies and alstroemeria, amongst others, for which farmers have to pay royalties.⁵⁴ Smallholder farmers access seed and planting materials predominantly through exchange and/or selling farm-saved seed. Nevertheless, the current plant breeders' rights policy prohibits them from such practice if it relates to protected varieties (Munyi, Jonge, & Visser, 2016). In some cases, the export firms provide farmers with inputs (Mwangi, 2017), but in most cases smallholder farmers are forced to grow older non-UPOV varieties, as they cannot afford the high costs of royalties for the high-quality and 'trendy' planting materials (Bolo, 2006; Kimenya, 1995; Rikken, 2011). Even if they can afford them, it was reported that the breeders themselves exclude smallholders. Breeders refused to sell the rights to their high-quality varieties to smallholders so they could regulate the supply of a particular breed to the market and decide who sells (and earns from) that breed. Cases of exclusive rights to some flower varieties in high market demand given to a particular (large-scale) grower are not uncommon (Research Team, 2017).

Other barriers for smallholders include weak institutional and infrastructural support, absence of government extension services, shortage of capital, dependence on family labour and continued fragmentation, all of which limit their voice to negotiate with investors and other actors in the industry (Mitullah et al., 2017; PASGR & CABE, 2016; Zylberberg, 2013). Some smallholder farmers started to focus more on local markets⁵⁵ (Rikken & Hulst, 2012). Although still rather limited, local markets are offering an alternative to the competitive export markets. Expansion of local and regional supermarket chains, prevalence of corporate events, fashionable restaurants and family events (i.e. weddings) offer new opportunities for selling flowers locally. Increasing numbers of flowers are sold by street vendors and at floriculture shops in high-/medium-class shopping centres, mainly in big urban centres such as Nairobi, Mombasa, Nakuru, Kisumu and Eldoret. The majority of the street flower vendors belong to the informal economy, but a growing number is venturing into formalization through the Flower Vendors Association (FVA). FVA was formed with support of the KFC in 2007 and currently they have approximately 200 members (Daily Nation, 2008; Mwangi, 2017; Own interviews, 2015). Local flower vendors can buy their supplies for example at the Nairobi Flower Market, which is open daily from 4 am to 7 am. The Flower Market is a place where the smallholders can trade excess of their (high-quality) harvest and the large-scale farms sell their 'reject' rose flowers that did not make it for export (Mwangi, 2017). For the moment, the quality of the flowers sold at the local market is inferior compared to the produce dedicated for export and the flower imperfections can often be seen with a naked eye as they sit on a dressed table in one of the many trendy restaurants in Nairobi.

Despite great potential in small-scale flower production for poverty reduction and employment creation, the Kenyan government remains aloof regarding the problems faced by the smallholders

⁵⁴ Mobydick is one of very few local flower varieties. It has been suggested that further research be conducted into Kenya's flora to identify and develop indigenous flower varieties for commercialization (Bolo, 2006).

⁵⁵ Mwangi (2017) also suggests that regional and African markets may be worth exploring for small-scale flower production. An example of Kenyan flowers being bought for Nigerian markets through the Dutch auction due to the ban on horticulture exports to Nigeria shows how international policies may hamper the intra-African trade and how important role the government must play in overcoming such barriers.

(Kiptum, 2005; Mitullah et al., 2017). It has been ignored that small-scale farmers face a different set of challenges from the large-scale farmers and the 'one-size-fits-all' policies for the industry may not be the most effective way of promoting the industry (Bolo, 2006). For example, the current VAT rebate system is very inefficient in terms of delays. It usually takes between six to 12 months to receive the VAT refund. Such delays are a significant burden for all flower exporters, but particularly the smallholders who operate without a strong cash base and cannot support such long repayment times. Consequently, it forces them to remain in lower value-added flower production (Rikken & Hulst, 2012). It is therefore imperative that the government and the market takes the needs of the smallholder flower farmers more seriously if the sector wants to make a genuine contribution to the inclusive development of Kenya.

3 The Survey

3.1 Methodology

The survey looked at the impact of (predominantly Dutch) multinational companies on the promotion of productive employment in Kenya in the sectors of floriculture. The data used in this paper was gathered using a mixed methods approach. First a survey was conducted among 46 firms operating in the Kenyan flower production sub-segment using a standardized questionnaire. This was followed by a case study of selected farms drawn largely from the survey information to get in-depth information, as well as interviews with seven companies in the supply chain.

The survey consisted of five sections that address the following:

- A. Information on the primary respondent
- B. The entity in Kenya
- C. Labour issues
- D. The operating environment for business in Kenya
- E. The parent company's entry into Kenya

The survey questionnaire was developed and piloted in October–November 2015 with nine companies. It was further adjusted and improved before the main data collection process in July–August 2016 and June–August 2017. The team consisted of eight junior researchers, supervised and coordinated by three senior researchers from the University of Nairobi (UoN) and the Kenya Association of Manufacturers (KAM). During this period, questionnaires were completed in the areas of Naivasha, Mount Kenya, Limuru and Nairobi. A total of 46 companies were surveyed.

Due to the relatively small number of the companies in the sector (145), the initial ambition was to survey all of them. Due to declines, delays and postponements of the interviews, the team was able to reach 46 farms, which represented 32 per cent of the flower-growing sector. Access is therefore an important limitation to this study. The survey was followed up with three in-depth case studies of Dutch growers and one Kenyan smallholder collective, as well as interviews with six companies in the supply chain.

The data from the survey were coded in SPSS and Excel by the research assistants at the University of Nairobi and jointly analysed by the project partners. This part of the report presents the results of this survey with the main focus on employment creation and the challenges that the companies, particularly the Dutch companies, currently face with respect to daily operations in Kenya.

3.2 Results

3.2.1 General results

Out of the 46 surveyed companies, over half (61 per cent) consider themselves a Kenyan company with headquarters located in Kenya. Only nine indicated having headquarters elsewhere (one in Israel, one in Germany and seven in the Netherlands). Although more companies could be classified as Dutch (by having a Dutch Director and owner or by having a sister company in the Netherlands), these companies are officially registered as Kenyan entities and present themselves as Kenyan. Half of the Dutch companies are direct subsidiaries of their Dutch mother company, and only a quarter of them have a substantial Kenyan ownership. As one of the objectives of this survey is to compare how Dutch companies perform compared to non-Dutch flower firms, companies with a 'Dutch connection' are considered as Dutch for the purpose of this analysis.

The majority (83 per cent) of the responding companies are growers, while 13 per cent are breeders and propagators. Among the latter group, all the companies are Dutch. The survey was also conducted with one small-scale grower and one flower broker (Table 2).

Table 2. Survey respondents categorized by their primary activity

	Kenya	Kenya w/Dutch connection	Netherlands	Germany	Israel	Total	% Total
Breeder		1	1			2	4%
Breeder, propagator			3			3	7%
Propagator		1				1	2%
Grower, propagator	3				1	4	9%*
Grower	21	7	3	1		32	70%
Grower, sourcing	2					2	4%
Flower broker	1					1	2%
Small-scale grower	1					1	2%
Grand Total	28	9	7	1	1	46	100%
	61%	20%	15%	2%	2%		

*Companies in this category are counted as growers (and not as propagators), as growing remains their primary activity.

Only one of the surveyed companies has been in operation in Kenya since 1969 and it is considered to be the pioneer in the sector. One more (Kenyan) grower started its operations in the late 1980s. The other respondents reflect well the constant growth of the sector that happened in the 1990s and 2000s: with 13 responding companies starting their operations in Kenya in the 1990s, 17 in the 2000s and 14 new companies entered the sector within the last decade. Among the breeding companies that were surveyed, 67 per cent entered the country in the 2000s and only two have been in operation since the 1990s (both actually working in the propagation sub-sector). This is not surprising, as Kenya only became interesting for the breeders after it acceded to the UPOV under the 1978 Convention in 1999. Some of the respondents are daughters to global floriculture veterans: two of the 'mother companies' have been operating for over a hundred years, while four were established in their country of origin already in the 1940s and 1960s (Table 3). The majority of the respondents are located in the Naivasha and Mount Kenya area. Most of the surveys were filled in by a (Managing) Director. Half of the respondents are expats; with almost half of them (48 per cent) coming from the Netherlands. Among the Kenyan companies with Kenyan managers (respondents), almost a third (29 per cent) used to work for a Dutch company before, including the manager of the small-scale grower scheme and the director of the growing and sourcing company. Interestingly, both of them used to work in the Dutch companies that are involved in smallholder flower sourcing

and sourcing,⁵⁶ respectively. The respondents had a very clear understanding of floricultural production and the sector's day-to-day challenges.

Table 3. Survey respondents categorized by their starting year of operations in Kenya

	1960s	1980s	1990s	2000s	2010s	Total
Breeders and propagators			2	4		6
Growers	1	1	11	12	13	38
Flower broker					1	1
Small-scale grower				1		1
Total	1	1	13	17	14	46

The majority of the companies are operating on less than 100 ha (Table 4), including some of the breeders and propagators that do not need a large plot as they use the land only to showcase their flower breeds. The majority of the product is exported, with only breeders and propagators selling over 95 per cent of their products in Kenya. Merely a fraction of the flower production (by the growers) targets the local market.

Table 4. Summarized (average) size of the survey respondents' farms categorized by type of operations

	Ha	No of companies	Average Ha
Breeder, propagator	29	6	5
Flower broker	10	1	10
Grower, propagator, sourcing*	1,132.5	36	31
Two largest growers	390	2	195
Small-scale grower	20	1	20**
Total respondents	1,581.5	46	

*Excluding two largest growers among the respondents

** Total joint area under flower cultivation of the member smallholder farmers

The majority (78 per cent) of all surveyed companies, out of which 77 per cent non-Dutch and 81 per cent Dutch flower companies, are members of the Kenya Flower Council (KFC). Non-Dutch companies (that are predominantly Kenyan) are more frequently members of other national advocacy networks, such as the Kenya Association of Manufacturers (KAM), Fresh Produce Exporters Association of Kenya (FPEAK), Horticultural Association of Kenya (HAK) or Kenya Private Sector Alliance (KEPSA) than the Dutch companies. All of the companies decided to invest in floriculture in Kenya predominantly due to its favourable climate conditions and access to skilled and cheap labour costs. Some companies also take advantage of regional or international trade agreements, as well as from geographical diversification of activities.

The sector is highly regulated as a result of its criticism that peaked in the 1990s that led to the development of international and national standards and certifications schemes. Such schemes impose a number of internal requirements, including availability of numerous internal policies. Surprisingly, even companies without certifications do have (some of) such documents available, which can be considered a positive spill over. Consequently, over 90 per cent of all the companies have drafted an internal Policy on the use of agrochemicals, a Code of Conduct and they prepare

⁵⁶ Sourcing in general, meaning that they don't limit themselves to flower sourcing from smallholders.

Annual Reports and Statements of Accounts. Furthermore, 94 per cent of Dutch and 87 per cent of non-Dutch companies are guided by their internal Employment Regulations, Labour Standards and Policy on Sexual Harassment. All but one Dutch company as well as three quarters of the non-Dutch companies have their own CSR policy. However, only 50 per cent of the Dutch firms and 57 per cent of the non-Dutch firms have officially regulated issues of Staff Development. Compared to their non-Dutch counterparts, Dutch companies are less likely to regulate trade union and conflict of interest issues through official documentation. The former is particularly surprising, as 70 per cent of Dutch companies have (some) workers belonging to a trade union, compared to only 43 per cent of non-Dutch companies. Furthermore, it appears that companies that have trade union members are also more likely to have employees organized in internal workers' committees. Welfare, gender and health & safety are the most frequently established groups.

GlobalGap is the leading international standard in the sector. As much as 47 per cent of non-Dutch and 56 per cent of Dutch companies adhere to it. The Ethical Trade Initiative is the second most adopted standard, with 13 per cent of both Dutch and non-Dutch farms following this guidelines. More non-Dutch companies gained ISO 14001 for the environmental management system, although the proportion of firms who have it remains at the lower end with 13 per cent of non-Dutch and only six per cent of Dutch companies that officially reach the criteria. Nationally, the Kenya Bureau of Standards (KBS) updated the KS 1758 part 1 – national standard for Flowers and Ornamentals in 2015. KS 1758, requires growers, propagators, breeders, consolidators, shippers and cargo handlers to produce and market the flowers and ornamentals under appropriate environmental conditions. The process of updating the standard was initiated by the Kenya Flower Council with funding support from the Dutch government. This standard supposed to be harmonized with existing international codes on good agricultural practices and guidelines, as well as with the relevant laws of Kenya, especially regarding the safe use of chemicals. Its sector-wide implementation has been delayed, but, in 2017, KFC together with FPEAK launched the Kenya Horticultural Council (KHC) with an objective to support the industry with the implementation of KS 1758 part 1 (and part 2 related to fruits and vegetables). A number of respondents were aware of the standard.

The Kenya Flower Council certificate remains the most popular certificate among the respondents and it is obtained by 67 per cent of non-Dutch and 56 per cent of Dutch companies. KFC Silver and Gold standards are considered the most rigid and demanding certification available to date;⁵⁷ however, the label as such is not well recognized internationally. That is why almost 40 per cent of all companies are also MPS-A certified and over 20 per cent are Fair Trade certified. Both labels are internationally recognized but did not originate in Africa. Proportionally, more Dutch companies are MPS SQ certified, although it is only a quarter of all of the Dutch respondents. MPS SQ is a certificate that focuses predominantly on the social aspects of the operations. Non-Dutch companies are also more often certified by Fair Flowers Fair Plants compared to their Dutch counterparts.

Despite many advantages of the various types of certification, obtaining a certificate is a costly process, thus beyond reach of most small companies, newcomers and smallholder farmers who wish to access international markets. Except for the KFC certificate and KS 1785, all other standards are developed outside Africa, therefore all the income generated by the certification process in Africa

⁵⁷ For more details about the certifications standards in the sector see Annex 4: Key Quality Standards in Kenya's Floricultural Sector. To read more about the standards and certifications and their comparison see e.g. Barrientos et al., 2001; Nelson et al., 2007; Potjer et al., 2015; Riisgaard, 2007; Rikken, 2011; Wilshaw et al., 2013.

effectively leaves the continent. Furthermore, the requirements are often designed and apply to large-scale productions, which means that they cannot be implemented by smallholder producers. They do not apply to the breeders or propagators either. There is a general feeling of overregulation in the sector. The many different sector standards and certification, and lack of clear and often contradictory regulations at a national and county level create a fertile ground for corruption on many levels. Therefore, there is a need for further simplification and better coordination of the sector.

3.2.2 Employment created

Total employment created by all the respondents was estimated to be 23,849 in the flower production and 1,227 in the interviewed companies operating in the value chain (Table 5 and Table 7). Regarding the flower production, Dutch companies are responsible for 33 per cent of the total figure. Growers and propagators are responsible for the majority (98 per cent) of the employment created by the respondents, while breeding companies for least of it (0.03 per cent) (Table 6).

Table 5. Employment created by the survey respondents in the flower production per country of origin

	Sum of Count	Sum of employees	%
Kenya	28	13,516	57%
Kenya w/Dutch connection	9	6,562	28%
Netherlands	7	1,187	5%
Germany	1	1,370	6%
Israel	1	1,214	5%
Grand Total	46	23,849	100%

Table 6. Employment created by the survey respondents in the flower production per type of operations

	Sum of Count	Sum of employees	%
Grower	32	16,656	69.8%
Grower, propagator	4	5,910	24.8%
Propagator	1	855	3.6%
Breeder, propagator	3	287	1.2%
Small-scale grower	1	108	0.45%
Flower broker	1	14	0.06%
Grower, sourcing	2	12	0.05%
Breeder	2	7	0.03%
Grand Total	46	23,849	100%

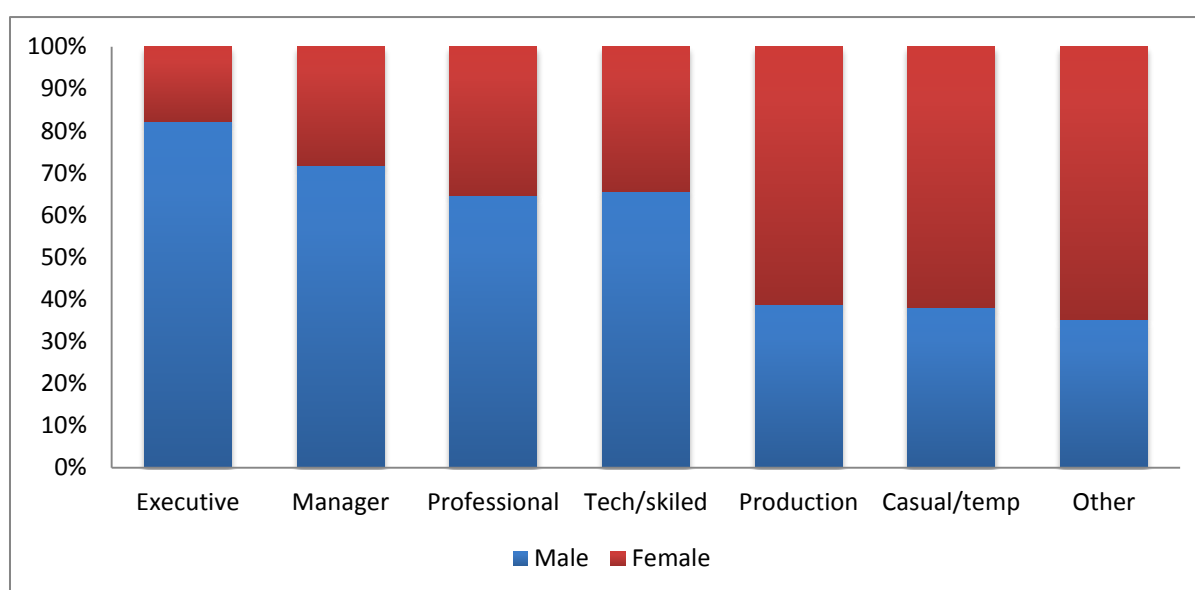
Table 7. Employment created by the survey respondents in the other parts of the value chain per country of origin

No of employees	Cargo	Chemicals	Handling	Packaging	Total	%
Kenya		700	157		857	70%
Netherlands	18	25	52	135	230	19%
Switzerland			140		140	11%
Total	18	725	349	135	1,227	100%

The majority of the farm jobs are available for low-skilled workers. The findings suggest that over 80 per cent of the employees are hired on permanent contracts, while the remaining 20 per cent can be classified as temporary or casual labour. The ratio of casual labour is much higher compared to the estimates by Mitullah et al. (2017). This is because this report does not assume that a casual worker is an employee without a contract. All the visited farms highlighted their commitment to HR procedures, meaning that even the casual or temporary employees had adequate working contracts drafted and in place, hence the discrepancy.

With regard to the gender division among the employees, it is well known that the sector attracts many female workers. In our sample, women constituted 59 per cent of the total workforce. The tasks within the sector, especially within the growing and production, are often distributed according to gender. For instance, women are predominately flower pickers, graders and packers; while men are hired as sprayers, irrigators, cold storage workers, maintenance, security, greenhouse workers and in management (Dolan et al., 2002). Figure 4 below confirms that the majority of low-skilled jobs are given to female workers, while more technical and administrative tasks are handled by male employees. Furthermore, our data shows that men perform most of the executive tasks, although a key stakeholder in one interview pointed out that 16 per cent of the flower farms are owned by women, which would indicate that the number of female executives in the sector is on the rise.

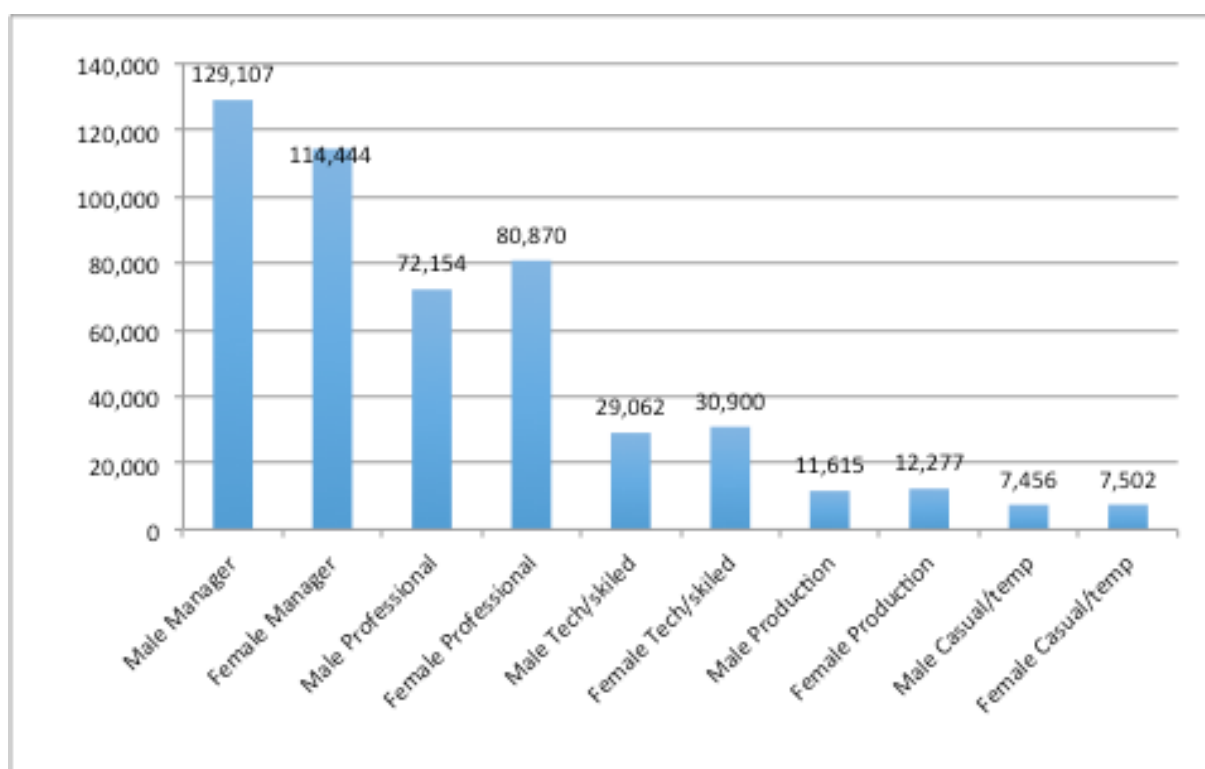
Figure 4. Gender division among the employees classified based on type of job



With regard to the salary, our findings mirror the outcome of Mitullah et al. (2017). On average, the surveyed flower producing companies provide higher than minimum wages in the agricultural industry (2016: 6,780 Ksh on average and 5,436 Ksh for unskilled labourers) but not yet an equivalent of the living wage of approximately 14,000 Ksh (RVO, 2016). That also depends on the region, as Anker and Anker (2014, 2017) estimated. They suggest that the level of 14,000 Ksh ($\pm$ US \$135) per month would be adequate in the rural areas, yet it is not sufficient for the urban regions, where they estimate the living wage to be US \$216 per month (Global Living Wage Series, 2016; Renon et al., 2018). The average salary for the unskilled labour among our respondents is between 11,615–12,277 Ksh, including housing or housing allowance (that according to Kenyan Law an employer is required to include for their contracted staff) (Dolan & Opondo, 2005; Dolan & Sorby, 2003). The companies

are committed to equal pay, yet some visible differences between the salaries offered to female and male workers can be found. For general workers, gender does not seem to be a discriminatory factor with regard to salary provided. On the contrary, female workers are paid better than their male counterpart. The discrepancy in most cases can be explained by a duration and stage of work within the company rather than dictated by gender. A similar observation is made for more skilled personnel where female technical and administrative professional appear to be paid more than their male counterpart. Male managers and executives, however, are enjoying a higher salary in comparison to their female counterpart, yet it should be stated that the average wage for the executives should be considered indicative but not representative, as only a few companies agreed to disclose the salary of their executives.

Figure 5. Average salary in Ksh in the floriculture sector (2016)



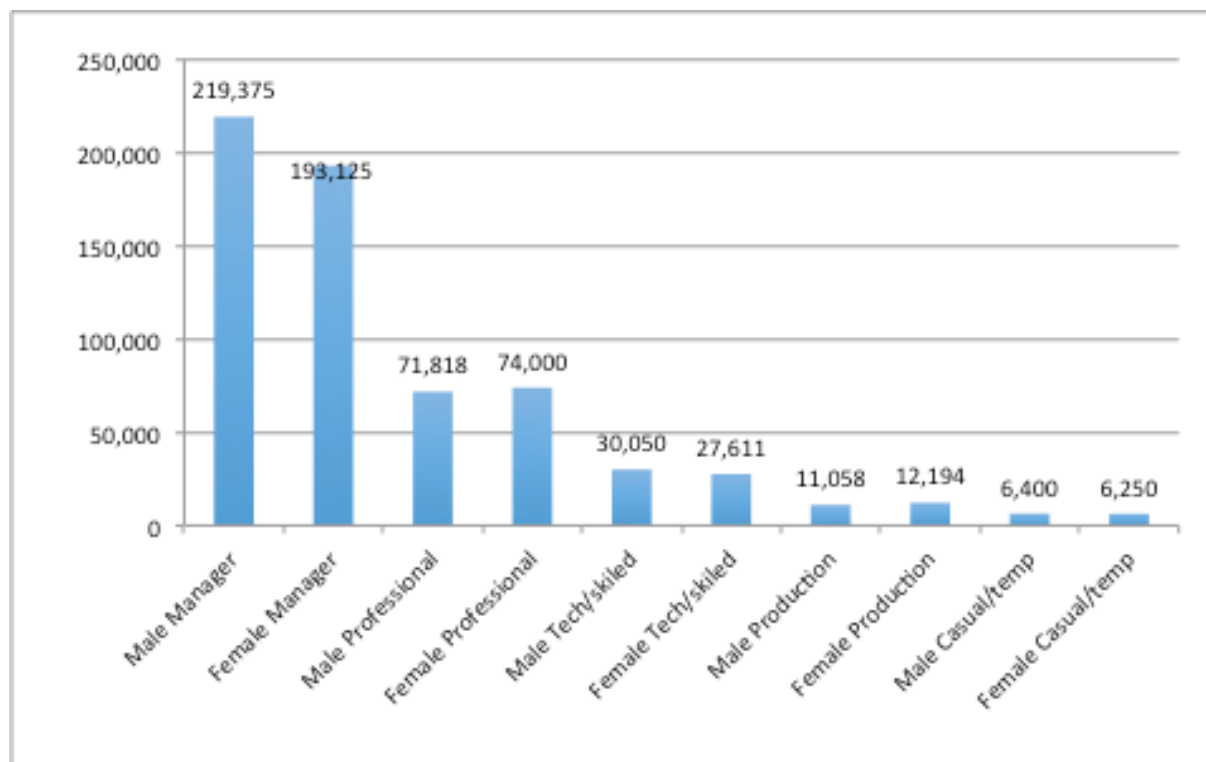
Source: Own calculations based on field data (information for June 2016).

If we zoom in on the Dutch companies in the sector, we will see that they provide an average sector salary, which is double the statutory minimum wage, but only in two cases of breeding companies, it surpasses the (rural) living wage standard for the production workers. Working for a breeding and/or propagating company requires higher skills and additional training even for the production workers. Finally, it can be observed that Dutch companies are offering a much more attractive salary on the management level in comparison to the sector average.

All companies offer additional benefits on top of the base salary. In addition to obligatory housing or housing allowance, most of the employers provide their employees with written contracts, maternity/paternity leave, meals, transport (allowance), healthcare, breastfeeding facilities and childcare facilities. Executives and management benefit from most of the additional benefits, so does the permanent staff, although to a slightly smaller extent. Casual and temporary labour is in the least

privileged position with regard to additional benefits, especially related to healthcare and transport. Only a fifth of the surveyed companies provide childcare facilities and half are providing breastfeeding facilities for their female workers; half and a third of them respectively are Dutch. Dutch companies also appear to discriminate least regarding the division of the benefits among the high management and permanent production workers, and they provide most of the benefits to their temporary and casual labourers. We hypothesize that this explains the general feeling among the local employees and residents around the farms that it is “better to work for a *Mzungu* [a white man] [...], as they pay better, treat you better and [some] have a football team” (Own interviews, 2016) .

Figure 6. Average salary in Ksh provided by the Dutch companies in the floriculture sector (2016)



Source: Own calculations based on field data (information for June 2016).

Managers are generally satisfied with the performance of their employees. They consider Kenyans as hard working and dedicated employees. So far, it appears that the current employees are rather satisfied with their jobs, as the flower farms under review experience very little turnover of their staff (the highest being for the low-skilled, yet even there it remains at the low end).⁵⁸ Among points for improvements, effective communication between the top management and production workers is still considered a challenge. Managers often communicate the executive decisions via printouts on notice boards instead of general meetings. It is also felt that many decisions considering production workers are taken without adequate consultations with the directly affected. Similar complaints were brought forward regarding wage discussions led by the trade unions. Negotiations of the Collective Bargain Agreement (CBA) by the trade union appear to remain a very top down process that does not involve much participation of the directly affected workers. Despite some improvements in the last years, the trade union is still considered inefficient and unprofessional, with cases of nepotism and

⁵⁸ It can also be an effect of lack of many employment alternatives.

patronage being mentioned on a number of occasions. Therefore, it is not surprising that the majority of the employees of the surveyed farms, although allowed, are not members of the trade union.⁵⁹ In case of any issues, they prefer to discuss it directly with the management or via internal employment committees.

The sector is expected to grow; therefore a number of incentives would be desirable from the companies' perspective if the government wishes the sector to generate more employment. Firstly, the companies would prefer less regulation by the state and introduction of low- or free-interest loans. International trade agreements, particularly being a signatory of European Partnership Agreement (EPA) that allows duty-free access for Kenyan horticultural products to the European market is critical. Without EPA in power, Kenyan flowers would have to be taxed. This consequently renders them uncompetitive. Furthermore, the state should provide better training institutes.

A number of the respondents pointed out that the government remains very passive and does not adequately support the sector development, thus also does not encourage further employment generation. An example of Ethiopia is given, where the government is much more active and welcoming to foreign investors. It provides land, initial infrastructure, tax incentives and freight subsidy to support the local floriculture sector development. Such incentives are absent in Kenya, or even on the contrary, more regulations and taxes are imposed on the companies in the sector instead. Issues of exchange rate volatility and double taxation on the national and county level have also negatively affected the operations. Widespread corruption is considered a high, albeit manageable threat to the business. More problematic are high and increasing costs of living, energy and production, which require yearly salary adjustments. That leads to high labour costs. Finally, excessive bureaucracy and an unstable political situation are considered a serious threat to business.

Consequently, the respondents suggested to reduce employment costs, provide a better training to the trade unions, as well as advice the government to reduce red tape, taxation and provide subsidies on freight and horticultural inputs.

3.2.3 Skills development

As the sector is already mature, it is possible to find necessary skills nationally. Yet, if the sector wishes to advance and develop further towards more value-added activities, more technical knowledge should be added to the pool of labour, hence the need for better and more specialized training.

Most companies provide on-the-job, in-house training for their employees, but they do not provide training to other national companies. This is partly a result of lack of clear internal Staff Development Regulations, as noted earlier. It is particularly problematic in the case of knowledge and skill development for propagation and breeding. Breeding technology remains highly protected by international companies, with very little knowledge being transferred nationally. Furthermore, this branch of the floriculture sector requires high investments in R&D and specialized technical knowledge. That is not to say that the existing breeding companies should give up their patents, but there is clearly a need to 'crack' the existing breeders' 'closed network' by providing finance and support to local R&D and public research in this domain. It will allow national companies to enter this part of the sector. Yet, public support alone is insufficient. If the sector is to develop further, the following skills are in high demand:

⁵⁹ In a number of responding companies, there are employees that belong to the union. However, often it is only a fraction of the total number of workers.

- Agronomist (incl. pests & diseases management)
- Breeding and propagation
- Good agricultural practices
- Post-harvest handling
- Technical (i.e. maintenance for machines)
- Management (including aspects of health & safety; logistics)
- Professional sales support

All the responding companies would be willing to invest more in training if there are policies in place that provide more tax breaks and greater incentives for hiring. Rebates or subsidies with respect to freight are also welcomed. The respondents also suggested enhancing training provided by the National Industrial Training Authority (NITA). Furthermore, expatriate staff should be urged to train their local counterparts in both management and technical skills.

3.2.4 Supply chain and imported products

The majority of the companies in the supply chain are local suppliers providing agro chemicals and fertilizers, but these companies are distributors of imported products. The local suppliers are valued positively, particularly for their efficiency and timely deliveries, although the cost of products is considered to be at the high end. Among the most frequently imported products, the following can be distinguished:

- Greenhouse and irrigation materials
- Organic inputs (peat, seeds and planting materials)
- Fertilizers / Chemicals

These products are imported because of three predominant reasons:

- There is no domestic source of the product in Kenya
- The domestic source is of an inferior quality
- The imported product or service is significantly cheaper

3.2.5 Bottlenecks linked to the supply chain

The floriculture chain provides an opportunity for the inclusion of a number of actors, including local actors. Nevertheless, the sector faces a number of challenges that affect both the forward- as well as backwards linkages, including challenges linked to the local content and local production. Among the main issues, the following can be distinguished:

- Bureaucracy
 - Delays with VAT refunds
 - Too much paperwork and delays in getting documents for import
 - Unreasonably high import duties
 - Long clearance time in Mombasa
- Transport
 - High freight charges
 - Bad roads
 - Harassment of transport by police
- Input/Seed
 - KEPHIS restrictions on importing seeds

- o Quality, price and availability of inputs
- o Many counterfeit products
- o High costs of royalties dictated by breeders (this often blocks flower smallholders)
- Quality and price of packing materials

3.2.6 Corporate Social Responsibility

The majority of the flower companies see Corporate Social Responsibility (CSR) as an integral part of their operations in Kenya. They feel the need or a pressure to support the local communities where they operate. All but one Dutch company and 77 per cent of non-Dutch companies have an internal policy regulating their CSR engagement. Their activities in this field can be broadly divided into five categories: education, health, infrastructure, social and environment. The most prevalent programmes are summarized below. Among the most common is educational support for employees' children and to increase their chances of reaching higher education by providing bursaries and scholarships. Furthermore, a number of farms have their own clinic and support local communities with clean drinking water. Farms are also involved in the local community by supporting local orphanages, local football clubs, libraries or police stations. They also contribute to improved environment and infrastructure by planting trees, engaging in conservation, building roads or providing street lighting. Only a few companies see the employment (and on-the-job training) they provide as part of their CSR. Finally, a number of companies have started to implement more environmentally friendly behaviours in their daily operations, such as installing solar systems, composting of organic waste or using LED lighting in the greenhouse. The majority of the farms have rainwater-collecting systems, but none of them mentioned this solution as part of their CSR or as part of an official sustainability policy.

Education:

- Supporting building and supplying local schools
- Provide bursaries for primary school children
- Provide scholarships for children of workers to pursue university degree
- Provide computer training (for employees, their children and others)
- Supporting workers who want to continue education

Health:

- Clinical facilities and nurses on the farm
- Supplying drinking water to the surrounding area
- Supporting local hospital
- Collaborate with NGOs to provide retroviral medications for employees who need them

Infrastructure:

- Building roads
- Water project
- Sponsor streetlight

Social:

- Provide employment
- Support local orphanages
- Support local football club
- Provide clothes for local kids and families
- Support Naivasha Children Rescue Centre
- Support the local police station
- Support local library
- Provide bicycles for employees
- Provide fish for the employees from the farm's fish pond

Environment:

- Planting trees
- Digging borehole
- Conservation of the (Naivasha) lake
- Composting organic waste
- Engage in wildlife conservation
- Use of solar system
- Use of LED lighting in the greenhouses

Looking at the activities in the field of CSR, it can be observed that companies are partly engaging in the social activities to improve their image and position in the local community by providing basic services that are not adequately delivered by the government. Some other activities remain ad hoc and are in response to requests from the local government or other authorities. There is a general feeling that the companies see CSR more in terms of corporate philanthropy or internal (or external) pressure to provide basic services to the local communities rather than having a long-term vision that focuses on integrating responsible and sustainable behaviour into core operations on the farms.

3.2.7 Government support

The respondents highlighted on a number of occasions that the sector has developed independently from the state and did not benefit from any substantial support. Only a handful of surveyed companies indicated that they were the recipient of governmental funding or received any incentives that would be helpful for the business development at any stage. The only governmental funding provided to the respondents came from the Dutch government to four Dutch companies: two received support through the Green Farming initiative,⁶⁰ one was a recipient of Emerging Markets Cooperation Programme (hereafter, PSOM)⁶¹ and one of Private Sector Investment programme (hereafter, PSI)⁶² (although the grant was not related to floriculture, but to the company's diversification into horticulture). All the external support was considered helpful, but additional sources were needed to further develop and operate.

Since 2005, the Dutch government has supported the floriculture sector with nearly five million euros, channelled through 16 PSOM, PSI or PSD Apps⁶³ projects. Half of the money went to linking Kenyan flower growers to new marketing opportunities, local bulb production, production and marketing of flower care products, introducing seed-based propagation; and local assembling and distribution of high-end irrigation dosing units (NL EVD International, 2005, 2006, 2007, 2008, PSI, 2009, 2010, 2011, 2012; Van Haren, Berends, Wiertsema, Van Der Gaag, & Verwer, 2007). That also shows that the support went predominantly to the companies operating in the flower sector supply chain, rather than to the direct growers. An important support to capacity building within the sector was offered to update the national mechanism for industry-wide compliance that led to redesigning of the Kenyan national horticulture standards for flowers and ornamentals (KS 1758 Part 1) and fruits and vegetables (KS 1758 Part 2).

⁶⁰ The Green Farming consortium consists of over 25 leading Dutch companies in horticulture technology. It unites horticultural networks in the Netherlands, Kenya and Ethiopia. Wageningen University and Research Centre supports the programme and is actively involved at the level of research and knowledge exchange. Green Farming activities related to water management, crop management, climate and energy, post-harvest and logistics; and research and knowledge exchange (Green Farming, 2013).

⁶¹ Emerging Markets Cooperation Programme (PSOM) was an instrument of the Dutch government to support private sector development, initially introduced in 1990. It aimed at cooperation with emerging markets. It included balance-of-payment support, sectoral budget support, debt relief, and programmes to reinforce the institutional capacity of the recipient countries. Kenya became eligible for PSOM in 2004 (Kazimierczuk, 2015; Van Haren et al., 2007).

⁶² Private Sector Investment programme (PSI), introduced in 2008, replaced PSOM. PSI was a subsidy programme to promote sustainable economic development by boosting investment in significantly innovative projects in the private sector in developing countries. The programme ran until 2013 when it was replaced by the Dutch Good Growth Fund instrument (Kazimierczuk, 2015).

⁶³ Private Sector Development (PSD) Apps is a toolbox that can assist Dutch embassies in their efforts to create a business-enabling environment, remove trade barriers and in matching local and Dutch business partners, in order to shape the local implementation of the Dutch agenda for Aid, Trade and Investment ((Netherlands Enterprise Agency, 2018).

The Kenyan government did not offer any subsidies to the respondents, or a reduction on land or utility charges. Only one growing Kenyan company benefited from the tax breaks offered by the Kenyan government, and one Dutch breeder and one Kenyan grower received governmental guarantees on profit and capital repatriation. These incentives were critical for these companies to invest in the sector.

4 Case Studies in Flower Production and in Value Chains

4.1 Company A – A Dutch company involved in production of cuttings

4.1.1 Background

Company A is a family business that was established in 1997, and is fully owned by a Dutch group. With its headquarters in the Netherlands, the company has production operations in Kenya, Ethiopia and Portugal. The company focuses on young and budding plants that do not do well during winter in the Netherlands, but must be ready by spring, thus there is a need to open up branches in Kenya to grow them under alternative suitable weather conditions. Seed production is done by other firms on contract outside Kenya. The company employs at least 4,000 people in total. The move to expand into other countries was also seen as a way to spread the risk.

4.1.2 Production

The company deals with budding plants, all for export. It is therefore not involved with the end product, which could be a flower or a plant. Cuttings are brought into Kenya from the Netherlands and then grown in the greenhouses in Kenya. The ethos of the company is pegged on 'the three P's': Planet, Profit and People.

According to the respondent, the total investment for a company like this is about € 5 to 10 million. This particular farm is on a eight-hectar plot, from which about 100 million cuttings are produced a year. The entire group produces about a billion young plants. Of the operational costs, 30 per cent are labour costs and 30 per cent goes towards transportation. Value-Added Taxes (VAT) are a big cost for the company, especially because it exports 100 per cent of its produce.

Production commodities such as pesticides and fertilizers are acquired in Kenya. Purchase decisions depend on price comparisons. Their main suppliers in Kenya are two local distributors. Company A is also implementing Integrated Pest Management (IPM) and supplies the natural enemies for biological control locally. With regard to logistics, Company A works together with two large international shipping agents: one Dutch and one Swiss.

Picture 3. A member of the research team visiting Company A



Source: (Own interviews, 2015).

The introduction of better technology, which substitutes manual labour to some extent, has led to better production. The new technology included Wi-Fi in the greenhouses, and custom-made apps that enable real time decision-making and data collection about the cuttings. The company also uses technology in its water and the filtration system. Company A wants to further invest in high knowledge and technology. Due to their specialized knowledge, Company A does product development with its suppliers.

4.1.3 Management, staff and welfare

Company A is managed by four people: two expatriates and two Kenyans. At the top of the corporate structure is a general manager and production manager, and under them, two heads of department who manage supervisors, group leaders and general workers. The shareholding is composed of two generations of family members. There is no Kenyan national on the board of directors.

The farm now maintains at least 380 permanent workers and manages to hire less seasonal workers. At least 70 per cent of the employees are women. The lowest level employee earns Ksh 12,000 per month. It has been noted that salary levels in Kenya are higher than in Ethiopia; about Ksh 6,000 more per month. The company also provides maternity leave and day care services combined with education services for children. There is no gender discrimination with regard to the salaries; the company follows the salary scheme provided by the regulatory authorities. But from the Dutch perspective, men get more as they negotiate earlier and tend to be more confident in their abilities in this regard. The interviewee claimed that the question of payment differences may be more an issue of negotiation skills with the superior.

Employees can progress from one level to the next by improving their education level, but the company does not offer any internship programmes. The company does, however, offer interest-free loans to its employees, or training or courses that will be relevant and beneficial for the company. Most of their employees opted for the loan to benefit their children. Company A also has six welfare committees that discuss employee issues.

With regard to the HR challenges, the company initially experienced some problems with appointing young supervisors. Culturally, some employees find it hard to accept that younger people are in higher positions. Nevertheless, the appointment of such supervisors has effectively contributed to more efficient production.

4.1.4 Regulation

Company A is subject to regulations by the Kenya Plant Health Inspectorate Service (KEPHIS), Kenya Pest Control Board, Water Resources Management Authority and National Environment Management Authority (NEMA). According to the interviewee, the Horticultural Crops Directorate (HCD), which should be an authority on floriculture, does nothing to encourage the development of the sector.

Some of the employees are members of the Kenya Plantation Agricultural Workers Union (KPAWU). As employers, Company A also has membership of the Agricultural Employers Association, Lake Naivasha Growers' Group and the Kenya Flowers Council.

Unlike the cut flower business, international certification is not mandatory for budding plants, as the company does not sell directly to consumers. Nevertheless, Company A has a KFC Silver and MPS certificate. To manage quality control in the farm in Kenya, every group of 25 workers is assigned a quality controller. Company A does not consider implementation of other standards, especially the

Fair Trade certification, as it may mean the closing down of the farm. According to the management, the increased labour costs related to this certificate will render the company uncompetitive.

For Company A, the national regulatory guidelines support their business. However, the process of enforcing these regulations is sometimes problematic due to the duplication of efforts by national and local government while enforcing the same policy. The responsibilities of the national and local government in regulating the industry are not clear. Additionally, the company reports that corruption has increased over the last four years, and the amount asked for as bribes has increased. The most corrupt organizations are at the local level, e.g. arms of the National Transport and Safety Authority.

Finally, international regulations and agreements, such as the Economic Partnership Agreement (EPA) are critical for their operations. Basically, failing in implementation of the EPA would mean closing down the farm in Kenya.

4.1.5 Corporate Social Responsibility

Company A had an annual budget of between four and five million Ksh dedicated to Corporate Social Responsibility. The main projects that contribute to CSR focus on the following categories: community, children, wildlife and education. The company is also involved in a farmers' catchment area project, although its involvement is coming to an end. The company also has a clinic, provides treated drinking water and has a fish farm, with fish that is given to its employees.

4.2 Company B – A Dutch large-scale rose grower

4.2.1 Background

Company B is a family business that started in the Netherlands around 1975. The Dutch parent company fully owns Company B in Kenya. The farm where Company B is located was established in Kenya in January 2004 by Sher Agencies Ltd, which was (then) owned by the Barnhoorn family (they are currently located in Ethiopia). Barnhoorn started growing roses in Kenya on a seven-hectare plot of land, and then he invited other growers from the Netherlands. Most flower farms were located in Naivasha because of the favourable climate and environmental conditions. In addition, the production and labour costs in Kenya were cheaper compared to the Netherlands. Company B produces purely for export (100 per cent) to the parent company in the Netherlands.

The company has been faced with a number of challenges, including a major blow in 2007 during post-election violence that created tensions and fear among workers. The ethnic clashes led to displacement of some workers. Without enough workers, the farm's production capacity was affected, given that flowers are perishable and need to be attended to regularly.

The company is certified by Fair Trade International, MPS-GAP; MPS grade A, and it has a vision of becoming one of the leading producers of bouquets in the European market. The company is now working towards meeting all Fair Trade standards, raise its ethical standards and improve employee welfare.

4.2.2 Management, staff and welfare

The management is composed of two directors: the owners located in the Netherlands, and a resident General Manager, who is also the Chief Executive Officer and oversees other managers

under him in different departments, recorders, team leaders and supervisors. Recorders keep records of employees, production, exports, what has been rejected or gone out of market, and so forth. Quality controllers check whether the roses meet required standards before they are taken to the batching section to be graded and batched. About 40 per cent of the staff is female. However, top management consist only of males, while middle level management, i.e. senior supervisors, comprises three women and two men.

Apart from the directors, the management consists of three expatriates: the Production Manager, the Technical Manager and the General Manager. It is likely that the Kenyan government is seeking to have Kenyans taking over management, as during permit renewal, the horticulture authority asked to see names of people that are in training to eventually take over from the expatriates.

Wages are standardized and performance-based, and thus, they are not different for the foreigners, and there is no gender wage discrimination. General employees get a basic salary plus housing allowance. Depending on the department, the management has arranged bonuses to boost performance. For example, sprayers whose team is doing well in terms of identifying and controlling pests and diseases are rewarded with bonuses. The employee welfare committee, which caters for all employees ranging from manual labourers to middle level management, looks after employee issues, especially those related to sexual harassment.

Pesticide spraying involves strenuous physical activity, and can be dangerous if pesticides come into contact with the skin or if they enter the bloodstream. Due to the health risks posed by the chemicals in the pesticides used in the farm, sprayers get blood tests quarterly to check amounts of chemicals in the blood. They take a break till their levels are down. As a policy, women are not allowed to spray pesticides or go near chemicals, as exposure could affect a foetus in case of pregnant women, or affect breastfeeding babies.

Although training is supposed to be done at all levels, most training is done for managers and supervisors but not for the general workers. Training programmes are done by the National Industrial Training Authority (NITA) and other NITA certified training organizations to equip employees with the necessary skills and information. The trainings involve sensitizing workers to their rights, work skills, wage negotiation skills, and selected employees are trained on administering first aid in case of injury during work.

The organization has internal policies and codes of conduct to set the minimum employment terms, and guide operations and behaviour. In addition, the organization adheres to the national labour laws, which cover five sections: the Employment Act, the Labour Institutions Act, the Labour Relations Act, Occupational Safety and Health and, lastly, the Work Injury Benefit Act (WIBA). The Employment Act covers contracting issues: working hours, terms of terminating a contract, and what the employer should provide, while the Labour Institutions Act deals with courts and institutions for employers and employees. The Occupational Safety and Health Act gives guidelines aimed at providing employees with a safe working environment. WIBA deals with compensating workers who get injured during work. The company also has policies against discrimination, sexual harassment, policies on handling grievances, issues regarding bonuses and overtime. The company has not had major disputes settled in court mainly because of good industrial relations.

4.2.3 Production and costs

The farm only produces roses – over 20 varieties with different colours and shades. The first harvest is ready in eight weeks, and thereafter, harvests are continuous. Pruning is done to control growth

depending on whether demand is high or low. After harvesting, the roses are pre-cooled to prevent further growth and taken for grading. Rejects that fail the quality test are shredded and passed to vegetable farms that use them to produce manure. This arrangement was put in place because previously some employees used to reject good flowers as they collaborated with external buyers to sell them locally.

In general, productivity levels of employees in Kenya are considered better compared to that of Tanzania, Uganda and Ethiopia. That is how the farm has managed to stay in business despite high operational costs. Salaries take up a big share of production costs and, in an efficient environment, the employer can maintain a limited number of employees to meet the target and make profits. Such a situation is also beneficial to the employees, as they can benefit from a higher salary that otherwise would not be achieved if the employees' number were higher.

As for the supply chain of Company B, the pesticides, fertilizers, greenhouses and irrigation systems are acquired locally from two leading companies. Handling is done by one of the lead Swiss companies. Due to the size of the farm, which is 70 ha, Company B also uses machinery and other stationary on the farm.

4.2.4 Regulation

The company is licenced by the Horticultural Crops Directorate (HCD), as required by law. It is also a member of the Kenya Employers Association (KEA) and the Agriculture Employers Association (AEA). The workers are members of the Kenya Plantation Agricultural Workers Union (KPAWU).

With regard to daily challenges, in addition to the capital-related operational cost, exchange rate fluctuation sometimes lead to losses. In the floriculture sector most of the companies are paid in euros. When the euro depreciates against the Kenyan Shilling, the company registers lower profits. The new regulation on interest rate capping has been positive for Company B because it is paying lower interest on loans, but smaller businesses are likely to suffer since banks cannot give them loans without security.

Furthermore, the tax burden is considered high, and in addition, the company has to pay a levy for road maintenance. Law enforcement is also problematic. The Kenyan government lacks manpower to regularly inspect the farms. Consequently, inspections are usually done when problems arise, for example, during labour strikes. Nevertheless, as the floriculture is largely not for local consumption, politicians generally do not interfere with the business as in other agricultural sectors.

4.2.5 Corporate Social Responsibility

The company has supported schools by building classrooms, toilets, providing electricity and borehole water. In some schools, the company has provided funds to hire more teachers and buy books. Moreover, they have set aside a piece of land to freely supply nutritious vegetables to workers who have declared HIV positive status. They have ensured that the clinic provides them with necessary drugs, and sensitized other workers on stigmatization of HIV positive workers. They also supplied Naivasha prison with a greenhouse to enable them to grow vegetables to feed prisoners. In 2012, they joined the Lake Naivasha Water Resource Users Association (LANARUA), an environment conservation group that aims at preserving Lake Naivasha. They incentivize farmers not to cultivate along the banks of the lake to minimize the effects of pollution that cause parasitic plants to grow in the lake and fish to die.



4.3 Company C – A Dutch large-scale rose grower and vegetables seed propagator

4.3.1 Company background

Company C was set up in Kenya in 2001. It is a family business with the mother company based in the Netherlands having been established back in 1967. The family is the majority shareholders with a combined shareholding of 75 per cent. The company has two major operations: cut flowers on 32 ha of land and propagation of vegetables seed on six ha of land. The company propagates seed for Syngenta, Monsanto and East African Seeds Ltd. In 2017, the company acquired an additional 20 ha for further expansion mainly in seed propagation. Company C is a member of the Kenya Flower Council (KFC), which is part of the Kenya Association of Manufacturers (KAM).

The climate conditions in Kenya were of the greatest influence on the decision of the family to invest in Kenya, and in Naivasha in particular. Naivasha has good climatic conditions for cut flower farming, plus it is close to Nairobi where the major airport is located. Secondly, the business environment is considered as more open and friendlier to foreign investors than in other African countries. Kenya is also endowed with skilled labour, which is productive compared to many other African countries. Although labour is cheaper in Ethiopia, their productivity and skills level is inferior to the workforce in Kenya. Finally, Kenya is strategic in terms of logistics – transport, banking, insurance, sea travel, and airport connections are relatively well developed.

4.3.2 Management, staff and welfare

In 2017, the farm had a total of 870 employees, of which 700 were in the flower farm while 170 were in the seed propagation farm. Of these, 514 are female and 356 male. There is a total of six managers employed to support the Managing Director (MD). The MD is the only expatriate working for Company C. The majority of the managers and professional staff is male. The salary for some of the

long-term production workers reaches the level of the rural living wage. On top of the salary, the company offers a number of additional benefits, such as housing and a transport allowance, meals/canteen, written contracts and healthcare. Company C, in conjunction with neighbouring farms, has built a clinic for their workers, which they run together. The wife of the MD is the Chair of the committee that oversees the clinic project. The clinic provides medical care for their workers and covers the employee, a spouse and two children. Each employee is handed a card and anyone in the family who goes to the clinic uses that card. The funds used to run the clinic and subsidize the services are provided by the Fairtrade Premium kitty, raised and pooled by the farms involved. The estimated sum of the Fairtrade Premium kitty has been between Ksh 10–12 million a year.

The MD of the Company C is positive about the quality of the Kenyan workforce. Kenyan employees are well equipped and generally work harder compared to other countries in Africa (such as Ethiopia). However, production skills, technical skills and people management skills for senior and junior managers could be improved so as to strengthen business. This could be done by enhancing, customizing and diversifying the training that the National Industrial Training Institute (NITA) offers.

So far, with regard to training, Company C trains supervisors and managers. One of the production managers, on a trip to visit his daughter who studies at the Wageningen University and Research Centre, also got to visit other farms in the Netherlands through connections of their parent company. Furthermore, farmers acquire skills and knowledge, especially on best farming practices, as they work in the flower farm and they can make use of these in their own farms. With the new greenhouse project that has been set up to be used for seeds propagation, Company C has reached out to institutions of higher learning such as Egerton University, Kenya Agricultural Research Institute (KARI) and Jomo Kenyatta University of Agriculture and Technology (JKUAT) to form partnerships in seed propagation. Some professors are set to visit the premises and have a look at the project. The project is being funded by the Dutch government through PSI. The idea is to create commercial and knowledge networks with other companies and universities as well as research centres. Finally, some Kenyatta University and Egerton University students have also been involved with internships in the farm.

4.3.3 Production and costs

At present, Company C has invested about € 10 million in Kenya and produces about seven million stems of roses per year and about two million seedlings per year. About 85 per cent of its produce (including 100 per cent of their flower production) is sold to the parent company in the Netherlands, which, in turn, sells and distributes the flowers through FloraHolland to various destinations in Europe. The remaining 15 per cent is sold as Freight on Board (FOB) to other customers at the Nairobi airport. In that sense, the company is not involved directly in exporting their produce, because the parent companies and customers based in Nairobi take care of the export logistics.

Company C collaborates with a number of mostly local input suppliers or distributors. It considers having good relations with the local suppliers, although it also considers the cost of handling services at the airport and the importing farm supplies as very high. It is noted, however, that Company C does not support their suppliers or vice versa in any way other than in the fulfilling their business commitments to one another.

4.3.4 Regulation

The management of Company C perceives the Kenyan institutional and regulatory environment as rather cumbersome. Among the most pertinent issues, the following were highlighted:

- The procedures for acquiring land for a foreign-owned company are not straightforward.
- The procedures for obtaining work permits for a foreigner are not straightforward.
- The Water Resources Management Authority (WARMA) has not been helpful, due to delays or declines in issuing water use certificates
- A number of levies and (double) taxations that are imposed on the private flower growers by the national and county government are too high. For example, the national government through the Horticultural Crops Directorate (HCD) collects a levy (on tonnage) for produce destined for export; while the county government is also seeking to introduce a levy on produce destined for export. That would be a case of double taxation, which will impact negatively on the competitiveness of Kenyan produce in the global markets.
- Delays with VAT returns by the Kenya Revenue Authority (KRA).
- Problematic and unclear procedures for importing goods, including farm inputs.

With regard to supportive policies, the respondent emphasized that international trade partnerships and agreements (i.e. EPA) are good for business and therefore they should be promoted and existing ones enhanced. In order to do so, the government should streamline the service delivery by the government agencies, and the county governments should harmonize their tax regimes with those of the national government to avoid double-taxing firms in the flower sector as well as in other sectors.

4.3.5 Corporate Social Responsibility

Besides sponsoring the clinic, the Fairtrade Premium fund, pulled together with the neighbouring farms, is used to facilitate other initiatives within the workers community and its environs. These initiatives include:

- Sponsoring the building of classrooms for schools in the town and neighbouring towns.
- Supporting the hiring of more teachers for these schools.
- Providing bursaries for the payment of school fees for the needy children in the community.
- Supporting waste management to enhance good sanitation in the locality.
- Training sessions for the workers on life skills such as: financial literacy and management, proper hygiene and sanitation, among others.
- Set up a partnership with a local training institute, where Company C pays 75 per cent of the expenses (including transport expenses) for the workers interested in learning and acquiring technical skills such as plumbing, electric wiring or manufacturing, among others.
- Paying for the training that the National Industrial Training Institute (NITA) offers to workers of flower farms, for which they charge their employers Ksh 50 per head.
- Maternity and paternity leave.
- Hour average wage/minimum wage per day.

Company C has also set up a water kiosk where they provide water to the residents of the flower farm environs free of charge.

4.4 Company D – A Kenyan smallholder flower growers collective

Company D is a collective of flower smallholder farmers growing summer flowers in the Aberdare Ranges. The group brings together 60 farmers that together produce between 42,000–63,000 stems of summer flowers on a weekly basis. The group has obtained Global GAP certification and is one of the implementers of the KFC Code of Conduct for Smallholder flower growers. KFC also supported the group with training, along with KEPHIS and Agriculture, Fisheries and Food Authority (AFFA). It

also facilitated the meetings that could eventually result in gaining access to the international market. Farmers from Company D grow summer flowers complementary to their food production (mostly for their own consumption). The production of summer flowers requires a small amount of chemicals to be used, so smallholder farmers in this collective predominantly use organic fertilizer.

Members of Company D face a number of challenges. Direct access to the international markets and high costs of freight are considered to be one of the main obstacles. Currently, the group is selling their flowers through brokers. As for the direct sales, it is focused on the local market.

Access to quality seed is another major obstacle. The prices of new and high-quality varieties are simply too high for the smallholders to pay. Their ambition is to venture into rose production, but the initial capital necessary to invest in infrastructure and plant varieties are beyond their reach. A final challenge is linked to access to the knowledge about the market pricing strategies.

The smallholders call for support from national and international actors with regard to access to seeds, start-up capital and access to market and pricing information.

4.5 Company E – A Kenyan branch of a Dutch MNC producing flower food

Company E started its operation in Kenya in 2009 as a branch of the Dutch multinational company that produces premium flower care products that increase the vase life of cut flowers. Kenya was always an important market for Company E's products, which were previously supplied from the Netherlands. It was, however, a time-consuming and expensive procedure that took between six and eight weeks by sea and involved sales of large quantities of the products. As the Kenyan market was expanding and the company wished to be closer to their customers, it was decided to open a local production facility.

In 2016, Company E hired 32 people and its operations concentrate on production, sales and providing technical support. Ninety per cent of the business derives from the production and sale of the flower food products, while the remaining ten per cent engage in technical support to (local) farms on post-harvest treatment.

Kenya's regulatory environment is considered challenging. The agricultural sector is regulated by a number of national institutions with a few seemingly overlapping obligations and coordination problems. Law and regulations are not always explicit, thus remain open for different interpretations. These facts may have a negative influence on the innovation process.

Kenya generally is considered a good place to do business, with well-developed IT infrastructure. Kenyans are also considered to be good managers and good workers. The company experiences problems with timely payments, though. The government could encourage local companies to fulfil their payment obligation on time by introducing discounts for regular and timely paying companies.

Company E engages in CSR activities. The company practices water recycling and educates farms on ways of reducing post-harvest losses and more sustainable water use. It supports an orphanage with beds and five schools with irrigation and training on how to use water to grow products, and on basic agricultural practices and better diet. Finally, Company E conducted water studies for Mt. Kenya growers.

In terms of the business environment in Kenya, Company E observes lacking support for a number of new individual entrepreneurs. On the global level, the company would like to see more balance of the pricing within the chain, with the premium and fair price to be paid not only by the customers (like in the Fair-Trade model), but throughout the chain.

4.6 Company F – A Dutch company producing flower sleeves and flower food

Company F is a subsidiary of a Dutch company producing printed and unprinted flexible packaging, including flower sleeves, as well as flower food and other accessories. Company F was opened in 2004 and, since then, it has been expanding. In 2013, it received support from the Dutch PSI programme to set up a production facility for the local production of plastic packaging material for vegetable exporters using eMAP technology (Netherlands Enterprise Agency, 2013). In 2016, Company F hired 135 people on a full-time basis, including 90 factory workers and 45 office employees. In the last two years, Company F has hired only two expatriates, one of whom left after training a national counterpart. Employees are free to join the Kenya Union of Printing, Publishing, Paper Manufacturing & Allied Workers (KUPRIPUPA), but not all of the staff are members. Regarding the benefits package, in addition to their salary, Company F employees receive full medical cover, housing allowance, lunch and tea in the workplace, as well as a transport allowance during vacations. Casual labour is an exception and the turnover is very low. The company offers on-the-job trainings for their staff and it promotes internal recruitment and promotion. The management tries to create a culture where everyone is valued using the assumption that “a happy employee is a productive employee”.

The Kenyan labour market is considered complex, as the company has experienced difficulties in finding qualified technical staff. It is much easier to find experienced candidates in operations and administration. Company F is also collaborating with local universities and provides internship possibilities to the students.

As a part of its CSR, Company F has hired and trained four deaf employees and it provides daily karate lessons to the underprivileged children from a nearby slum, including participation in the karate competition. In the future, they plan to create more job possibilities for hearing-impaired and disabled people. The main constraint for the moment is related to inadequate physical infrastructure, as the office building is not adjusted to persons with limited mobility.

In terms of local business environment, Company F acknowledges some improvements in recent years. There are less charges and restrictions for new investors, including easier access to work permits for expats and tax exceptions for some raw materials. The local market is expanding and Kenya is an attractive destination for investors. Nevertheless, in terms of the local content, the impact of Company F is limited. The company is importing raw materials from China and the Netherlands, as none of the products are produced locally.

The points for further improvement include greater support and incentives for the companies that hire disabled people (also to increase job opportunities for this group). An exchange programme between Kenyan and Dutch students should be set up, in order to encourage knowledge sharing in the technical field. The government should also support companies that invest in training and promote the growth of their employees.

4.7 Company G – A Kenyan company providing agri-input suppliers

Company G was established in 1898 and is one of the oldest and the largest agri-input suppliers in Kenya. This family-owned company is a distributor for a number of chemical products used in agriculture, provide flower sleeves packaging, green house sheeting and other materials used predominantly in floriculture. Their operations also expand to neighbouring countries, such as Tanzania and Uganda. The company is a member of the Federation of Kenyan Employers (FKE), the Kenya Association of Manufacturers (KAM) and an associate member of the Kenya Flower Council (KFC).

Company G employs approximately 700 people in Kenya and around 100 in neighbouring countries, including 30 expatriates. Among the staff, 85 per cent of jobs are available for lower skilled employees. Company G's employees are unionized in KUPRIPUPA and the salary scheme follows the agreed Collective Bargain Agreement (CBA), with obligatory contributions to healthcare and pension, as well as salary increase every year. The company provides a number of trainings for their staff, often through KAM. In-house training is mostly on-the-job and linked to requirements enforced by the standards the company adheres to. That includes ISO 9001 for a quality management system and British BRC-SGS certification for packaging. The management of the company perceived the Kenyan workforce very positively. Local staff is considered ethical and hard working. The promotions and in-house recruitment are common.

Company G is also heavily involved in charitable activities. Through their CSR programmes, they support construction of local schools, provide books, sanitary towels and daily feeding programmes in the said schools. Company G also supports a vocational institute that works with underprivileged youth to develop micro- and small enterprises. Finally, the company is also assisting an elderly care home with transportation and electricity line.

Company G is the initiator and funder of the National Farmers Award – an award scheme that rewards local farmers that can compete in five categories: small-scale farms geared to commercialization, fully commercialized small-scale farms, fully commercialized large-scale farms, large-scale agro-input dealers and small-scale agro dealers. The annual event, supported by a number of private sector partners, as well as the Ministry of Agriculture, has gained national recognition, with the number of applications entering the competition increasing every year. Furthermore, Company G is targeting the smallholder farmers with chemical products that are packed in small quantities and affordable for this group.

The business environment in Kenya has been improving within the last two decades according to the management. The number of improvements in national legislation and infrastructure are mentioned. Domestic economy is perceived as stable, with strong involvement of the African private sector. The capacity in the country is also growing – increasing numbers of people are well educated, including people with internationally obtained diplomas. The government has introduced a number of improvements, such as iCitizen and iTax portals to speed up the business registrations and VAT return. Also, there have been improvements with regard to the incentives provided by the government, such as investment allowance (which provides a substantial rebate on tax for investments in rural areas). Among issues that require further improvements, issues of high electricity prices as well as improvement of the legal court system were indicated.

In moving forwards, Company G plans to increasingly engage in more specialized technical activities that would add more value to the sector.

4.8 Company H – A Dutch cargo airline company

Company H in Kenya has two major divisions: passenger flights and cargo. It has served Nairobi with its freighters since the 1970s. Company H is one of the oldest airlines operating in Kenya, currently with the biggest cargo capacity to Europe (daily passenger flights capable of bringing 8–15 tons of cargo, 5 full freighters via Harare, Johannesburg and Nairobi – 100 tonnes each; and two freighters of capacity equal to 80–100 tonnes on the route Paris – Reunion – Madagascar – Nairobi – Paris).

In total, Company H employs 18 people in their Kenya branch, including two expats. The direct employment diminished from 50–60, after Company H outsourced the warehouse handling to Kenyan Airlines (KQ). KQ also takes care of the ramp handling for the exported products. In case of flowers and other fresh products, they arrive at the KQ warehouse already prepared for transport. Flowers are usually packed on the farm and later brought to the handling agent located in the vicinity of the airport by cooled trucks. They bring ready pallets to the KQ warehouse where they are weighed and await loading on a plane.

Fresh produce constitutes 92 per cent of all the cargo handled by Company H, out of which, 90 per cent are flowers. Most of the flower cargo passes via Amsterdam. Company H has a long-standing relationship with the flower sector and has been handling the delicate cargo for the past quarter century. The nature of the cargo has changed, though. What used to be mostly transported in the full-freighters is now increasingly transported in the ‘bellies’ of the big passenger jets that serve Kenya with three flights a day.

Globally, Company H has experienced financial difficulties that also affected the local branches. To reduce costs, some staff had to be dismissed. Despite this, Company H is considered to be a good employer in both Kenya and globally, resulting in a very small internal staff turnover. The company is offering their employees trainings, particularly on safety and airport rules. The nature of the job requires mostly higher education from their employees and some people undergo leadership or sales training, depending on their position within the company. The company offers a benefit package for the staff that, on top of the salary, includes housing and transport allowance, contribution to health insurance and a possibility to fly on ‘stand-by’ (which reduces the costs of a plane ticket substantially). Some employees are members of the trade union, but it does not apply to all staff.

Company H is committed to responsible business and follows its global policy in this regard. Locally, it supports the Lewa Marathon to raise money for the private initiative of Company H staff. This private initiative also organizes bush camps, where volunteers from the Netherlands go camping with underprivileged children from Kenya. Company H has also partnered with Flower Watch – a private company specialized in the optimization of the cold chain management – to increase the efficiency of the Company H’s cold chain. Finally, Company H is testing and partly already using biofuels to reduce the carbon footprint of their planes.

Company H is an associate member of the KFC and a member of the Netherlands Business Hub.

The liberal environment in Kenya is considered to be the most important for Company H’s successful operations in the country, but the company is also facing steep competition in the cargo sector.

Adequate infrastructure is important for the sector and although it has improved, more needs to be done. Finally, the government should increase their efforts to promote a more conducive business environment.

4.9 Company I – A former Dutch, now Swiss company involved in handling

Company I was started in 1993 by Oserian to handle their flower cargo, until the Dutch Flower Group (DFG) – a major Dutch sourcing company operating in Kenya – bought it in 2010. In 2016, Company I was sold again, this time to a Swiss logistics multinational. Since the handover, new investments have been made to expand the size of the handling facility, which is located within the Nairobi airport area. On the market, it is currently the second largest handling agent. About 93 per cent of all the cargo handled by Company I are flowers and the company wish to expand it further in terms of tonnage.

Company I is a frequent choice for Dutch flower companies and it remains the main handler for flowers produced by Oserian, which is a leading grower in Kenya. The company is also an associate member of the KFC and a member of Shipment Council of East Africa.

As an employer, Company I hires 157 people directly (including six expatriates) and a further 52 (two expats) in supply chain management via the Dutch Flower Group (DFG). Skilled labours constitute 35 per cent of all the employees, while the rest is unskilled. According to the Director, it is fairly easy to find good, unskilled employees, to whom they provide an in-house training (also as a part of the company's CSR). Skilled labour is usually well qualified, but people lack the necessary experience. Therefore, Company I is providing in-house training on aviation security, handling, market-related activities and labelling, among others. They are also encouraging external training to enhance job-related or company-relevant capabilities of their staff. Reportedly, three mIn Ksh is spent on staff trainings annually. The company also prefers to recruit internally. So far, a third of all the employees have been internally promoted from the level of the 'warehouse' to an 'office job'. Company I offers attractive working conditions. In addition to the basic salary, which is, on average, 23 per cent higher compared to other Kenyan handling companies and 26 per cent higher than statutory minimum wage,⁶⁴ the employees can also use the provided bus transport, on-site meals (fully subsidized for the less privileged staff and inexpensive for the rest) and comprehensive medical cover for the employee and their family (up to three children). This results in a very low staff turnover, although the competition periodically 'poaches' some of their employees. There are no trade union members, but employees are organized in a welfare committee, which meets on a monthly basis.

Company I specializes in managing the cold chain for fresh and perishable products produced for export. As a branch of a multinational company that has offices all over the world, it is capable of providing end-to-end services in a number of countries. Handling of the product starts from the moment the flowers leave the farm, where the flowers are already packed in boxes. They are further brought to the handling facility of Company I by cooled trucks, where the necessary infrastructure is in place. The boxes of flowers are offloaded and pallets with flower boxes are 'built' to fit precisely into the planes that will bring them to their final destination. There is also an x-ray screen to screen for illegal or unwanted items in the boxes, and an in-house KEPHIS agent to provide the cargo with the necessary phytosanitary export certificate without delay. Company I was among the first

⁶⁴ Own calculation based on the company's internal documents.

handling agents that opened an in-house branch of KEPHIS to reduce the delays in obtaining the necessary certificate, without which the fresh cargo cannot leave the country. As a result, 90 per cent of certificates are now delivered on time, compared to seven per cent before this adjustment. Finally, the handling agent takes care of all necessary paperwork related to export and bring ready pallets (usually at the very last moment to reduce the exposure to heat) to the airline warehouse.

Regarding the CSR activities, the company is continuously working with DFG to support an orphanage near Nairobi, and it takes part in the Nairobi marathon every year to raise money for charity and it also sponsors an elephant. In the coming years, they wish to engage more with their direct local community and support their schools, orphanage or infrastructure. They would also like to explore possibilities related to solar energy.

Kenya is generally considered a good destination for the business, with “good people, good weather and continuous growth in the flower sector production” (Own interviews, 2016). Although a rapidly emerging Ethiopian floriculture is considered to be a threat, as well as not signing the EPA. Moreover, nationally, companies face a number of challenges. There are too many governmental organizations that are not well-coordinated and efficient. One of the most prominent examples is the Kenya Revenue Authority (KRA), which is responsible for handling VAT returns to the companies. The VAT refund should be processed within three months from the date of issue. The delay at the moment of the interview was 12 months (the photo on the right shows only a portion of the cases that are awaiting a VAT refund). The ‘Catch 22’ in this case is that a company cannot export a product without a completed form and full VAT and export duties paid. It is only after this payment that a company receives the requisite document from KRA to file for the tax refund, which then takes further months to be paid back. With the current delay, many companies are stranded and their cash flow is seriously affected.



There are many opportunities for further development in the sector, but it would require a high level of investment. For example, KQ could invest more in their cargo services to become more competitive. The sector could also invest further in value-added activities to be done in Kenya. Further improvements in the cold chain are also required, and some have been already happening after the advice provided by Flower Watch.

Company I is not working with smallholder farmers. They are considered as a risky group of clients to work with, as experience has shown that they frequently face difficulties with timely payments of airfreight bills. This is related to the fact that smallholders have problems accessing and sustaining long-term capital. It has been estimated that a farm should earn a minimum of 1,82 \$ per bunch of ten stems (there are ± 20 –40 of such bunches in a box) to cover the costs of production and make a marginal profit.

4.10 Company J – A Swiss company involved in handling

Company J has been operating in Kenya since the early 1990s, after acquiring Airlink. Company J provides a full scope of logistics solutions to the sector of perishable goods, 90 per cent being

flowers. Their services start with collecting the flowers at the farms with refrigerated trucks, bringing the goods to their facility near Nairobi airport, where they provide cold store facilities, consolidating the shipments on airfreight pallets for the various flights, taking care of the necessary export paperwork and certificates, to final arrangements and sending off of the cargo to the desired destination by the dedicated airline. Company J is a member of the FKE and an associate member of the KFC.

Company J's operation in Kenya provides jobs for approximately 250 people, out of which 140 is permanent, and 110 is temporary, out of which mostly work in the cold chain split into three shifts. All the staff are local or have Kenyan passports. Company J considers their working conditions as very good. On top of the salary and obligatory contributions, the employees receive a year-end bonus, housing allowance and supplementary health insurance. Furthermore, the employer provides a daily company bus for their employees. The majority of the cold chain staff, but only a few of the office employees, belongs to a trade union. Company J values internal experience and there are good prospects for internal promotion (from the warehouse to the office level) and provides a number of training to their employees. Apart from the on-the-job training, the other courses provided most frequently relate to freight forwarding and logistics, health and safety, dangerous goods, or customs relations.

Company J has a rather limited CSR programme. Once a year, an employee delegation visits and provides donations to a nearby nursing home and orphanage. Internally, they are committed to reducing the use of paper in their daily administration, while a new 'green office policy' is expected.

Company J is working with most of the large-scale flower farms, as well as with the small-scale flower outgrower schemes. They also provide the in-house services of KEPHIS, which is based on their premises near Nairobi airport to speed-up the process of necessary phytosanitary control and certification required for exported fresh products.

Regarding the sector, Company J is among the leading players in Kenya. They do notice the increased competition in the sector, yet the number of new companies entering the handling sector is very low. The real challenges relating to their operations are those that affect the agricultural sector, such as erratic weather patterns, as well as Kenyan bureaucracy with respect to exported fresh products. The VAT refund procedure is particularly cumbersome, especially for small-scale consolidators, which may still lack capacity and knowledge to properly follow-up on the complicated paper work procedures. Finally, the poor road infrastructure is problematic and can affect the timely delivery of the perishable goods from the farm to the airport, which consequently may negatively impact the quality of the product.

There are, however, further opportunities. An air-perishable logistic system that will track the fresh cargo and increase the quality of the product at the final destination is already being tested in collaboration with Flower Watch. The opening up of direct flights to the US is seen as another major opportunity for the sector.

5 Conclusions

The purpose of this working paper is to assess the extent to which the flower sector in Kenya has generated jobs that are sustainable, inclusive and productive; and to investigate whether there are

any differences between practices and quality of employment created by the international players, particularly Dutch companies compared to the non-Dutch counterparts. In addition, this paper aims at understanding and revealing the main challenges the companies in the flower sector experience in their day-to-day operations.

Today, Kenya is the world's leading flower producer. The majority of the flowers are exported to the Netherlands. The surveys, conducted among 46 firms operating in the Kenyan flower production sub-segment, as well as a number of case studies and interviews with companies in the supply chain, reveal that foreign investors – especially from the Netherlands – have played a critical role in launching and expanding the floriculture industry in Kenya. Dutch companies were among the first to start flower export businesses, and Dutch and Israeli advisors have been important sources of technical support. This connection is illustrated by the fact that among the Kenyan managers that took part in the survey, almost a third (29 per cent) gained their experience working for Dutch flower companies.

Since the 1970s and the beginning of the commercial flower cultivation, the sector has developed independently from the state and has not benefited from any substantial support for decades. The initial lack of attention to the sector by the Kenyan government is considered as positive, as it allowed the sector to be driven by market forces. However, it also meant that investors did not receive any official subsidies or a reduction of land or utility charges from the Kenyan government. Within the last decade, the government has shown an increased interest in the sector, but it has not translated it into any substantial incentive schemes. On the contrary, more regulations and taxes were imposed on the sector instead. Issues of exchange-rate volatility and double taxation on the national and county level have negatively affected the operations. Widespread corruption, as well as high and increasing costs of living, energy and production are considered very problematic, as they lead to high operational, especially labour, costs. Finally, excessive bureaucracy and delays with VAT returns pose a serious threat to business.

With regard to governmental support for the sector, assistance from the Dutch government must be taken into account. With a number of Dutch companies operating in the sector (14 per cent of growers, and 84 per cent of breeders and propagators), and the Netherlands being the key destination for Kenyan flowers, the Dutch government has injected nearly five million euros since 2005 for sector development through its Private Sector Development (PSD) instruments. Most of this support went to companies in the supply chain, rather than the flower growers; nevertheless, this Dutch funding allowed the KFC to push for the update of the national horticulture standard for flowers and ornamentals (KS 1758 Part 1). This standard is supposed to harmonize the existing international codes on good agricultural practices and guidelines, as well as the relevant laws of Kenya, and should be beneficial to the entire sector. Finally, the Dutch funding also supports the Export Promotion Council (EPC).

In 2016, approximately 190 flower farms and 5,000 smallholder farmers were involved in the flower production. Flower growing is done predominantly by Kenyan-owned farms and local smallholders, while Dutch companies dominate the breeding and propagation activities. Smallholders and growers provide the highest employment opportunities in the entire chain, predominantly for women, due to the labour intensive character of their operations. Breeders, propagators and other companies in the chain hire less people directly, but create an important indirect employment in the sector.

The sector is highly regulated, with a number of international and national standards, certifications and regulations in place. A major improvement in terms of quality of employment can be observed within the last decade. The survey findings suggest that over 80 per cent of the employees are hired on permanent contracts, while the remaining 20 per cent can be classified as temporary or casual labour. Practically all the employment created is local. On average, the surveyed flower producing companies provide higher than minimum wage in the agricultural industry, but not yet an equivalent of a living wage. The average salary for the unskilled labour among our respondents is between 11,615–12,277 Ksh, including housing or housing allowance. All companies offer additional benefits on top of the base salary. Dutch companies provide an average sector salary, which is double the statutory minimum wage, but in only two cases of breeding companies, does it surpass the (rural) living wage standard for production workers. Dutch companies also appear to discriminate less regarding the division of the benefits among the high management and permanent production workers. They also provide the most benefits to their temporary and casual labour. Among some residents of areas around the farms, there is a general feeling that Dutch companies are better workplaces compared to their national counterparts, “as they pay better, treat you better and [some] have a football team.” Our data did not indicate major differences in salary rates between Dutch and non-Dutch farms, particularly for the unskilled workers; however, the cases of more equal treatment and other social engagement (through i.e. their Corporate Social Responsibility (CSR) activities) contribute to a better image of the Dutch companies.

Our data shows that the majority of low-skilled jobs are given to female workers, while men perform most of the executive tasks, although a key stakeholder in one interview pointed out that 16 per cent of all flower farms are owned by women, which would indicate that the number of female executives in the sector is on the rise. All of the respondent companies are committed to equal pay, yet some differences between the salaries offered to female and male workers can be found. Women are generally paid better than men, except those in the higher-level positions. In most cases, though, the salary differences can be explained by length of service, as employees who have worked for a longer period of time benefit from a higher salary due to the yearly increases.

Managers are generally satisfied with the performance of their employees. They consider Kenyans as hard working and dedicated employees. Also, the flower farms under review experience very little turnover of their staff. It is generally possible to find necessary skills nationally. However, more technical knowledge should be added to the pool of labour in the years to come. Our data shows that only half of Dutch firms and 57 per cent of non-Dutch firms have an official policy on Staff Development. Hence, there is a need for a better and more specialized training. Most of the companies would be willing to invest more in training if government policies would provide tax breaks and more incentives for hiring and training. So far, most of the companies provide on-the-job, in-house training for their employees, but they do not provide training to other national companies, which limit the opportunities of knowledge transfer. The case is particularly pertinent in the case of the breeders, who are international and predominantly Dutch companies. As the royalties paid to the breeders for the rights to their plant materials are one of the major costs for the company (constituting up to 40 per cent of the total costs of [rose] production), the breeding companies have little interest in supporting local flower R&D. It is therefore observed that while local Kenyan investors have been able to enter into the cut flower growing business, the young plant segment is somehow off limits and remains dominated by the established European, mostly Dutch breeding companies.

With regard to the Corporate Social Responsibility (CSR), the majority of the flower companies see CSR as an integral part of their operations in Kenya. They feel the need or a pressure to support their surrounding local communities. All but one Dutch company and 77 per cent of non-Dutch companies have an internal policy regulating their CSR engagement. This engagement is usually in education, health, infrastructure, social and environmental domains. CSR in the flower sector remains ad hoc and is in response to the requests from the local government or other authorities. A few companies see the employment, above-minimum wage and on-the-job training provided as part of their CSR. The majority of the farms have also implemented more environmentally friendly behaviours in their daily operations, but they do not see that as a part of their CSR. Practically none of the companies have an official long-term vision that focuses on integrating the responsible and sustainable behaviours into the core operations on the farms.

Among final points for improvements, effective communication between the top management and production workers is suggested. There is a feeling that many decisions considering production workers are taken without adequate consultation with those directly affected people. Similar complaints emerged regarding wage discussions led by the trade unions. Negotiations of the Collective Bargain Agreement (CBA) by the trade union remain a very top-down process that does not involve much participation of the directly affected workers, with women being particularly underrepresented. There is also a general feeling that the sector is overregulated. The many different sector standards and certification arrangements are expensive and limit access to markets especially for smallholders. Lack of clear and often-contradictory regulations on national and county levels create fertile ground for corruption on many levels. Finally, poor road infrastructure is problematic and can affect the timely delivery of the perishable goods from the farm to the airport, which consequently may negatively impact the quality of the product. Therefore, the following section presents a number of policy recommendations that have been developed to further simplify and better coordinate the sector.

6 Policy recommendations

Kenya is in the world elite of countries producing flowers. The sector has matured over the years and today is operating based on high international standards. Most of the necessary mechanisms are already in place, but they may still need to be enhanced. We therefore recommend the following:

To the Kenyan Government:

1. Capacity building

- a. Invest in capacity building at the higher level and at the Technical and Vocational Education and Training (TVET) level to increase the pool of skilled labour in the sector for competitiveness.
- b. Invest in local R&D and public research to promote the development of indigenous flower varieties for commercialization.

2. Enhance conducive business environment

- a. Improve on productivity and competitiveness of the sector by enhancing coordination mechanisms between counties and national government on key issues in the sector. Use the opportunities created by platforms like the Council of Governors, Agriculture and Lands Committee, as well as the Presidential Round Table (PRT).
- b. Continue the fight against corruption.
- c. Improve the speed of tax refunds for the industry.
- d. Finalize special economic zones provision for the sector.
- e. Provide tax exemptions for companies that invest in in-country R&D activities.

3. Productivity

- a. Review and improve subsidies implementation on agricultural inputs and equipment to benefit the growers to reduce costs of production.
- b. Continue improving infrastructure.
- c. Expand provision of agricultural insurance to consequences of climate change.

4. Wage

- a. Engage labour organizations and workers during wage discussions for consumer/stakeholder input without overriding the employers.

To the International Community:

1. Technology and Knowledge transfer

- a. Technical knowledge
 - i. Engage in trainings of local companies.
 - ii. Provide more technical knowledge and support on national level.
- b. Promote R&D in-country and contribute to public research.
- c. Undertake mentorship programmes in partnership with running institutes (Universities, TVET) and local companies.
- d. Tackle breeders' oligopoly.

2. Responsible business practices for sustainability

- a. Biological pest control and fertilizer development and use.
- b. Integrate CSR into the core business operations for enhanced community benefits.
- c. Commit to using a significant level of local materials in the production process.
- d. Honour and implement climate change agreements in the business operation for sustainable production.

3. Expand financial instruments to SMEs and smallholder flower growers to support professionalization, inclusiveness and sustainability of these businesses.

4. Invest in capacity training of trade unions for professionalization, including mentorship for proper worker representation

References

- AFA/HCD. (2016). *Validated Report 2015-2016*. Nairobi: Agriculture and Food Authority, Horticultural Crops Directorate.
- AFFA. (2014). *Horticultural Validated Report 2014*. Nairobi: Agriculture, Fisheries and Food Authority. Retrieved from <http://www.agricultureauthority.go.ke/wp-content/uploads/2016/05/Horticulture-Validated-Report-2014-Final-copy.pdf>
- AGRIPRENEUR. (2016). History of Pyrethrum In Kenya. Retrieved May 5, 2018, from <http://agripreneur.co.ke/agripreneur/history-of-pyrethrum-in-kenya/>
- Akinyoade, A., Dietz, T., & Uche, C. U. (2017). *Entrepreneurship in Africa* (Vol. 15). Brill.
- Anker, R., & Anker, M. (2014). *Living wage for Kenya with focus on fresh flower farm area near Lake Naivasha*.
- Anker, R., & Anker, M. (2017). *Living Wage Report - Kenya. With a focus on rural Mount Kenya Area. Global Living Wage Coalition* (Vol. 1). Retrieved from http://www.isealliance.org/sites/default/files/Kenya_Living_Wage_Benchmark_Report.pdf%5Cnhttp://www.isealliance.org/online-community/blogs/18-living-wage-benchmarks-underway-criteria-to-be-embedded-in-standards
- Barlow, M. (2008). *Blue Covenant: The Global Water Crisis and the Coming Battle for the Right to Water*. New Press. Retrieved from <https://books.google.be/books?id=OuOpswEACAAJ>
- Barrientos, S., Dolan, C., & Tallontire, A. (2001). Gender and ethical trade : a mapping of the issues in African horticulture, (July), 0–41. Retrieved from <http://gala.gre.ac.uk/11551>
- Barrientos, S., Dolan, C., & Tallontire, A. (2003). A gendered value chain approach to codes of conduct in African horticulture. *World Development*, 31(9), 1511–1526. [http://doi.org/10.1016/S0305-750X\(03\)00110-4](http://doi.org/10.1016/S0305-750X(03)00110-4)
- Barrientos, S., & Smith, S. (2007). Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems. *Third World Quarterly*, 28(4), 713–729. <http://doi.org/10.1080/01436590701336580>
- Bedasso, B. (2012). Lords of Uhuru: the political economy of elite competition and institutional change in post-independence Kenya.
- Blowfield, M. (1999). Ethical trade: A review of developments and issues. *Third World Quarterly*, 20(4), 753–770. <http://doi.org/10.1080/01436599913541>
- Bolo, M. O. (2006). *Knowledge, Technology and Growth: The Case Study of Lake Naivasha Cut flower Cluster in Kenya*. The World Bank.
- Bolo, M. O. (2008). The Lake Naivasha cut flower cluster in Kenya. In D. Z. Zeng (Ed.), *Knowledge, Technology, and Cluster-based Growth in Africa* (pp. 37–51). Washington, DC.: World Bank Publications.
- Bolo, M. O. (2010). Learning to export: building farmers' capabilities through partnerships in Kenya's flower industry. *Cirad-Inra-SupAgro*, 1–12. Retrieved from http://hal.archives-ouvertes.fr/docs/00/52/61/45/PDF/Bolo_Learning_to_export.pdf
- Bolo, M. O., Muthoka, N. M., Washisino, R., Mwai, V., & Kisongwo, D. (2006). *Research Priorities For Kenya's Cut-Flower Industry: Farmers' Perspectives* (Technopolicy Brief No. 14). Nairobi.
- Brinkman, H.-J., & Gray, C. (1999). Africa's growth slowed in 1998. Retrieved May 29, 2018, from <http://www.un.org/en/africarenewal/subjindx/124econ.htm>
- Business Daily. (2017, March 14). Senate probes working conditions on ower farms. *Business Daily*. Nairobi. Retrieved from <http://www.businessdailyafrica.com/NEWS/539546-539546-FORMAT-XHTML-SVMKEWZ/INDEX.HTML>

- CARE International Kenya. (2016). *Political Economy Analysis of Kenya 's Horticultural sector*. Nairobi.
- Casida, J. (2012). *Pyrethrum: the natural insecticide*. Elsevier.
- CBI. (2005). *EU Market Survey 2005: Cut flowers and foliage*. The Hague: Centre for Promotion of Imports from Developing Countries (CBI).
- Chege, J. (2012). *Value Addition in Coffee Industry in Kenya: Lessons from Cut Flower Sector* (ICBE-RF Research Report No. 21/12). Nairobi.
- Cleaver, K. M. (1993). *A Strategy to Develop Agriculture in Sub-Saharan Africa and a Focus for the World Bank* (World Bank Technical Paper No. 203). Washington, DC.
- Cunden, M., & Van Heck, E. (2004). Bargaining power and information technology in African-European business relationships: Case of the dutch flower auctions. *European Management Journal*, 22(5), 573–587. <http://doi.org/10.1016/j.emj.2004.09.014>
- Daily Nation. (2006, July 25). Small flower growers get a big boost. *Daily Nation*. Nairobi. Retrieved from <https://www.nation.co.ke/lifestyle/smartcompany/-/1226/135342/-/m8ldos/-/index.html>
- Daily Nation. (2008, August 11). Market for summer flowers blossoming. *Daily Nation*. Nairobi.
- Daily Nation. (2010, March 7). A lot of research already done can be used to save Lake Naivasha. *Daily Nation*. Nairobi.
- Daily Nation. (2011a, May 17). Report 'clears' flower farms over lake's woes. *Daily Nation*. Nairobi.
- Daily Nation. (2011b, June 8). Target on foreign firms over tax evasion. *Daily Nation*. Nairobi.
- Daily Nation. (2011c, November 27). Flower firms warned on emissions. *Daily Nation*. Nairobi.
- Daily Nation. (2017, November 9). Flower farm workers get 23pc pay rise in new deal. *Daily Nation*. Nairobi. Retrieved from <https://www.nation.co.ke/news/Flower-farm-workers-get-23pc-pay-rise-in-new-deal/1056-4180508-gc6w5t/index.html&via=dailynation>
- Dolan, C., & Humphrey, J. (2000). Governance and trade in fresh vegetables: The impact of UK supermarkets on the African horticulture industry. *Journal of Development Studies*, 37(2), 147–176. <http://doi.org/10.1080/713600072>
- Dolan, C., & Opondo, M. (2005). Seeking common ground. *Journal of Corporate Citizenship*, 18, 87–99. <http://doi.org/10.1016/j.orgdyn.2011.01.002>
- Dolan, C., Opondo, M., & Smith, S. (2002). *NRI Report No : 2768 Gender , Rights & Participation in the Kenya Cut Flower Industry by By* (No. NRI Report No: 2768 SSR). Kent.
- Dolan, C., & Sorby, K. (2003). Gender and employment in high-value agriculture industries. *The International Bank for Reconstruction and Development, Agriculture & Rural Development Department*, 1–90. Retrieved from http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/08/08/000094946_03072604085021/Rendered/PDF/multi0page.pdf
- Duncan, A. (1982). The Effectiveness of Aid to Kenya : A Case Study, (2), 72–76.
- English, P., Jaffee, S., & Okello, J. (2006). Exporting Out of Africa. The Kenya Horticulture Success Story. In L. Fox & R. Liebenthal (Eds.), *Attacking Africa's Poverty: Experience from the ground*. Washington, DC.: The World Bank.
- EPC Kenya. (2018). EPC Kenya: Profile. Retrieved May 30, 2018, from http://www.epckkenya.org/index.php?option=com_content&task=view&id=30&Itemid=49
- Ethical Trading Initiative. (2018). What we do. Retrieved May 30, 2018, from <https://ethicaltrade.org/about-eti/what-we-do>
- Everard, M., & Harper, D. M. (2002). Towards the sustainability of the Lake Naivasha Ramsar site and its catchment. *Hydrobiologia*, 488(1–3), 191–203.
- Evers, B., Opondo, M., Barrientos, S., & Krishnan, A. (2014). *Global and regional supermarkets :*

- implications for producers and workers in Kenyan and Ugandan horticulture Working Paper 39* (Capturing the Gains No. 39). *Capturing the Gains*. University of Manchester.
- FAO. (2002). A thorn on every rose for Kenya's flower industry. Retrieved May 1, 2018, from <http://www.fao.org/english/newsroom/news/2002/3789-en.html>
- Fintrac. (2010). *Value Chain Analysis of Flowers produced for Export by Smallholder Growers in Kenya – 1. Baseline survey*. Washington, DC.: Fintrac Inc.
- Floral Daily. (2018, February 15). NL : Female rap group fights for living wage African flower pickers. *Floral Daily*.
- FPEAK. (2018a). About us. Retrieved May 30, 2018, from <http://fpeak.org/index.php/about-us/>
- FPEAK. (2018b). Horticulture Council of Africa (H.C.A). Retrieved May 30, 2018, from <http://fpeak.org/index.php/horticulture-council-of-africa-h-c-a/>
- FSI. (2018a). Floriculture Sustainability Initiative. Retrieved May 30, 2018, from <https://www.idhsustainabletrade.com/initiative/floriculture-sustainability-initiative/>
- FSI. (2018b). FSI 2020. Retrieved May 30, 2018, from <http://fsi2020.com/>
- Gemählich, A., & Kuiper, G. (2017). *Global influences and local relations in the flower industry around Lake Naivasha , Kenya*. Bonn/Cologne.
- German Federal Ministry for Economic Affairs and Energy. (2015). *Kenyan Flower Industry – Potential for Renewable Energy*. Berlin. Retrieved from www.renewables-made-in-germany.com/%5Cnwww.renewables-made-in-germany.com
- Gibbon, P., & Riisgaard, L. (2014). A new system of labour management in african large-scale agriculture? *Journal of Agrarian Change*, 14(1), 94–128. <http://doi.org/10.1111/joac.12043>
- Global Living Wage Series. (2016). *Kenya Living Wage Benchmark Infographic*. Global Living Wage Coalition.
- Green Farming. (2013). *Cost-effective use of solar energy in East African horticulture*. Green Farming.
- Hale, A., & Opondo, M. (2005). Humanising the cut flower chain: Confronting the realities of flower production for workers in Kenya. *Antipode*, 37(2), 301–313. <http://doi.org/10.1111/j.0066-4812.2005.00494.x>
- Harris, S. R. (1992). *Kenya Horticultural Subsector Survey*. Nairobi: USAID & KEDS.
- HCDA. (2010). *Horticulture Validated Report 2010*. Nairobi: Horticultural Crops Development Authority.
- HCDA. (2013). *Horticulture Validated Report 2013*. Nairobi: Horticultural Crops Development Authority.
- Highchem Agriculture. (n.d.). Pyrethrum Farming. Retrieved May 5, 2018, from <http://www.highchemagriculture.co.ke/en/pyrethrum-farming.php>
- HIVOS. (2013). *Fair Flowers: The Journey of the Rose*. Den Haag.
- HIVOS. (2018). Small Change Big Deal. Retrieved May 30, 2018, from <https://www.smallchangebigdeal.nl/over-ons/>
- Horticultural News. (2017). New Standard for Kenya fruits and vegetable exports. Retrieved May 30, 2018, from <http://www.hortinews.co.ke/2017/06/28/new-standard-for-kenya-fruits-and-vegetable-exports/>
- Hughes, A. (2001). Global commodity networks, ethical trade and governmentality: organizing business responsibility in the Kenyan cut flower industry. *Transactions of the Institute of British Geographers*, 26(4), 390–406. <http://doi.org/10.1111/1475-5661.00031>
- International Trade Centre. (2011). Flower Label Program - FLP. Geneva: International Trade Centre.
- Irgungu, G. (2013, January 7). Flower firms under KRA probe over tax payments. *Business Daily*.

- Retrieved from <https://www.businessdailyafrica.com/news/Flower-firms-under-KRA-probe-over-tax-payments/539546-1659960-1394bq7/index.html>
- Irungu, G. (2013). Kenya grows economy nine times since independence. *Business Daily*. Nairobi. Retrieved from <https://www.businessdailyafrica.com/news/Kenya-grows-economy-nine-times-since-independence/539546-2108314-fq5evuz/index.html>
- Jaffee, S. (1992). *How private enterprise organized agricultural markets in Kenya*. (Policy Research Working Paper No. WPS 823). The World Bank.
- Jaffee, S. (1995). The Many Faces of Success: The Development of Kenyan Horticultural Exports. In S. Jaffee & J. Morton (Eds.), *Marketing Africa's High-Value Foods: Comparative Experiences of an Emergent Private Sector*. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- Jaffee, S., Henson, S., & Rios, L. D. (2011a). *Making the Grade: Smallholder Farmers, Emerging Standards, and Development Assistance Programs in Africa-A Research Program Synthesis*. Retrieved from <https://openknowledge.worldbank.org/handle/10986/2823>
- Jaffee, S., Henson, S., & Rios, L. D. (2011b). *Making The Grade: Smallholder Farmers, Emerging Standards, and Development Assistance Programs in Africa. A Research Program Synthesis*. Washington DC.
- James Kariuki. (2018, June 4). Cut flower exports defy poll jitters to hit Sh82bn in 2017. *Daily Nation*. Nairobi. Retrieved from <https://www.nation.co.ke/business/Cut-flower-exports-defy-poll-jitters-to-hit-Sh82bn/996-4595916-392u86z/index.html>
- Kagwe, W. (2011, February 12). Rosy outlook for flower farmers. *Daily Nation*. Nairobi.
- Kajilwa, G. (2016, October 21). 60 ,000 flower farm workers get 25 per cent pay increase. *Standard Digital*. Nairobi. Retrieved from <http://www.standardmedia.co.ke/business/article/2000220591/60-000-flower-farm-workers-get-25-per-cent-pay-increas>
- Kamau, J. (2017, October 8). Secrets of unwanted Danish billionaire Jan Bonde Nielsen. *Daily Nation*. Nairobi.
- Kazimierzczuk, A. H. (2015). *Historical overview of development policies and institutions in the Netherlands, in the context of private sector development and (productive) employment creation* (ASC Working Paper No. 122 / 2015). ASC working paper. Leiden.
- Kazimierzczuk, A. H. (2016). Challenges for inclusive development in the flower sector in Kenya. Retrieved May 30, 2018, from <http://includeplatform.net/challenges-inclusive-development-flower-sector-kenya/>
- Kelly, N. (2017). No bed of roses: The Kenyan flower pickers fighting sexual harassment. *BBC News*, 1–8. Retrieved from <http://www.bbc.co.uk/news/business-39103419>
- KEPHIS. (2016). Internal statistics. Nairobi: KEPHIS.
- Keter, G. (2017, November 28). Naivasha flower firms on spot over poor pay. *The Star*. Nairobi. Retrieved from http://www.the?star.co.ke/news/2016/11/28/naivasha?flower?firms?on?spot?over?poor?pay_c1463155
- KFC. (2017a). Kenya Flower Council. Retrieved October 22, 2017, from <http://kenyaflowercouncil.org/>
- KFC. (2017b). The Kenya Horticultural Council officially launched. Retrieved May 30, 2018, from <http://www.kenyaflowercouncil.org/blog/?p=6299>
- KHRC. (2012). *Wilting in Bloom: The Irony of Women Labour Rights in the Cut-flower Sector in Kenya*. Nairobi: Kenya Human Rights Commission.
- Kimunya, L. N. (1995). Kenya's experience in promoting smallholder production of flowers and vegetables for European markets. *African Rural and Urban Studies*, 2(2–3), 121–141.

- Kiptum, B. K. (2005). Building export markets for Kenyan flowers: Challenges and Opportunities facing small scale flower growers in Kenya. In *ATPS/CTA national dissemination and exhibition workshop on the flower industry in Kenya on March* (Vol. 31, p. 2005).
- Kirigia, E., Betsema, G., Van Westen, G., & Zoomers, A. (2016). *Flowers for Food? Scoping study on Dutch flower farms, land governance and local food security in Eastern Africa. Synthesis and country reports Food & Business Knowledge Platform (F&BKP) and LANDac*. Utrecht.
- Kuiper, G., & Gemählich, A. (2017). Sustainability and Depoliticisation: Certifications in the Cut-Flower Industry at Lake Naivasha, Kenya. *Africa Spectrum*, 52(3), 31–53. Retrieved from <http://nbn-resolving.org/urn:nbn:de:gbv:18-4-10783>
- Leipold, B., & Morgante, F. (2013). *The Impact of the Flower Industry on Kenya's Sustainable Development. International Public Policy Review* (Vol. 7). London.
- Lim, F., Nabeegh, S. V., & Qing, H. (2010). The progress and issues in the Dutch, Chinese and Kenyan floriculture industries. *African Journal of Biotechnology*, 9(44), 7401–7408. <http://doi.org/10.5897/AJB10.740>
- Little, P., & Dolan, C. (2000). What it Means to be Restructured: Nontraditional Commodities and Structural Adjustment in Sub-Saharan Africa. In A. Haugerud, P. M. Stone, & P. D. Little (Eds.), *Commodities and globalization: Anthropological perspectives* (Vol. 16, pp. 59–78). Rowman & Littlefield Publishers.
- LNGG. (2018). Lake Naivasha Growers Group: About Us. Retrieved May 30, 2018, from <http://lngg.org/about/>
- Loukes, K. (2008). *Kenya's Cut -flowers: An Unsustainable Industry on Lake Naivasha*. Ontario.
- Lowthers, M. (2015). *Sexual-Economic Entanglement: A Feminist Ethnography of Migrant Sex Work Spaces in Kenya*. The University of Western Ontario. Retrieved from <https://ir.lib.uwo.ca/etd/3423%0AThis>
- Maina, G., Mutitu, E. W., & Ngaruiya, P. N. (2011). *The Impact of Agrobacterium tumefaciens and other soil borne diseases on productivity of roses in East African region. An issue paper for Kenya Flower Council*. Nairobi. Retrieved from http://www.euacpcommodities.eu/files/2.ESA_D02_KFC_Seminar_Issue_-_Agrobacterium.pdf
- Mbaria, G. (2012, May 22). Trading blame is hardly the best way to save the beleaguered Lake Naivasha. *Daily Nati*. Nairobi.
- McCulloch, N., & Ota, M. (2002). *Export Horticulture and Poverty Reduction* (IDS Working Paper No. 174). Brighton. Retrieved from <https://www.ids.ac.uk/files/Wp174.pdf>
- Mekonnen, M. M., Hoekstra, A. Y., & Becht, R. (2012). Mitigating the water footprint of export cut flowers from the Lake Naivasha Basin, Kenya. *Water Resources Management*, 26(13), 3725–3742.
- Mitullah, W., Kamau, P., & Kivuva, J. M. (2017). *Employment Creation in Agriculture & Agro-Processing Sector in Kenya in the Context of Inclusive Growth: Political Economy & Settlement Analysis* (PASGR Working Paper No. 020). Nairobi.
- Mlynska, A., Wass, G., & Amoding, F. (2015). *Thorns Amongst the Roses: A Cross-country analysis of Human Rights Issues in Flower Farms in East Africa*. Antwerp.
- Monda, J. . (2014). *Pyrethrum sector in Kenya-Current Status*. Nairobi. Retrieved from http://projects.nri.org/options/images/Current_status_of_pyrethrum_sector_in_Kenya.pdf
- MPS. (2018). Certificates. Retrieved May 30, 2018, from <https://www.my-mps.com/en/certificates-producer>
- Munene, M., & Njeru, M. (2004, March 30). Kenya : The Sh200m Riches of Former CBK Chief Kotut. *Daily Nation*. Nairobi. Retrieved from <http://allafrica.com/stories/200403300247.html>
- Munyi, P., Jonge, B. De, & Visser, B. (2016). Opportunities and Threats to Harmonisation of Plant

- Breeders' Rights in Africa: ARIPO and SADC. *African Journal of International and Comparative Law*, 24(1), 86–104. <http://doi.org/10.3366/ajicl.2016.0142>
- Muthoka, N. M., & Muriithi, A. N. (2008). Smallholder summer flower production in Kenya: A myth or a prospect? *Acta Horticulturae*, 766, 219–224.
- Mwangi, N. (2017). Propertied Proletarians? The Kenyan Cut -Flower Industry. Retrieved December 12, 2017, from <http://roape.net/2017/06/21/propertied?proletarians?kenyan?cut?flower?industry/>
- Mwaniki, C. (2017, July 20). Remittances, tourism grow. *Business Daily*. Nairobi.
- Nelson, V., Martin, A., & Ewert, J. (2007). The impacts of codes of practice on worker livelihoods: empirical evidence from the South African wine and Kenyan cut flower industries. *Journal of Corporate Citizenship*, (October), 61–73. <http://doi.org/10.2307/jcorpciti.28.61>
- Netherlands Enterprise Agency. (2013). PSI Projects: Equilibrium Modified Atmosphere Packaging. Retrieved May 17, 2018, from <https://aiddata.rvo.nl/projects/NL-KVK-27378529-PSI12KE21/?tab=summary>
- Netherlands Enterprise Agency. (2018). IATI aiddata. Retrieved May 28, 2018, from <https://aiddata.rvo.nl/programmes/NL-KVK-27378529-26067/?tab=summary>
- Njoroge, M., & Wanjiru, K. (2017, November 7). Strike over six month Salary Arrears . *Kenya News Agency*. Nairobi. Retrieved from <https://kenyanewsagency.go.ke/en/?p=118599>
- NL EVD International. (2005). *PSOM: Project overview 2005*. The Hague.
- NL EVD International. (2006). *PSOM: Project overview 2006*. The Hague.
- NL EVD International. (2007). *PSOM: Project Overview 2007*. The Hague.
- NL EVD International. (2008). *PSOM: Project Overview 2008*. The Hague.
- Ochieng, W. R. (1992). The Post-Colonial State and Kenya's economic Independence. In W. R. Ochieng & R. M. Maxon (Eds.), *An economic history of Kenya*. Nairobi: East African Publishers.
- Omolo, J. (2010). *Youth Unemployment in Kenya*. Nairobi.
- Opondo, M. (2002). *Trade policy in the cut flower industry in Kenya*. Nairobi.
- Ouma, S., Feyter, K. de, Haan, E. de, & Stichele, M. Vander. (2008). *Economic Development or Human Rights? Assessing the Impact of Kenya's Trade and Investment Policies and Agreements on Human Rights*. Paris and Nairobi.
- Own interviews. (2015-2016). Research Team. Nairobi.
- Oxford Business Group. (2016). *The Report: Kenya 2016*. Oxford.
- PASGR and CABB. (2016). *Creating Employment in Horticulture Sector in Kenya: Productivity, Contracting and Marketing Policies* (Utafiti Sera Policy Brief No. 002). Nairobi.
- Perlez, J. (1991). Naivasha Journal; Dutch Flowers? In Name Only. Ask the Kenyans. *The New York Times*. Retrieved from <http://www.nytimes.com/1991/02/02/world/naivasha-journal-dutch-flowers-in-name-only-ask-the-kenyans.html?scp=9&sq=lake+naivasha&st=nyt>
- Perry, B. D. (2012). *The structure and dynamics of cut flower export markets from Kenya and Ethiopia, with particular reference to trade with Norway* (NUPI Working Paper No. 797). Oslo.
- Pichon, E. (2018). *Economic Partnership Agreement with the East African Community* (European Parliament Research Service No. PE 620.218). Brussels.
- Plant Research Overberg. (2018). About PRO – Plant Research Overberg. Retrieved May 29, 2018, from <http://www.pro-overberg.nl/about-pro/>
- Potjer, B., Bergman, E., Scholte, M., & Bani, M. (2015). *Creating Shared Value in the supply chain. Exploring the business case for a living wage rose*. Amsterdam.

- PSI. (2009). *Private Sector Investment programme (PSI) Project overview 2009*. The Hague.
- PSI. (2010). *Private Sector Investment programme (PSI) Project overview 2010*. The Hague.
- PSI. (2011). *Private Sector Investment programme (PSI) Project overview 2011*. The Hague.
- PSI. (2012). *Private Sector Investment programme (PSI) Project overview 2012*. The Hague.
- Rainforest Alliance. (2018). About Us. Retrieved May 30, 2018, from <https://www.rainforest-alliance.org/about>
- Renon, S., Rusman, A., Zwart, L., Martinius, E., & Michel Scholte. (2018). *Towards a Living Wage. Living wage gap benchmark analysis of roses grown in Kenya, Ethiopia and Zambia sold by large Dutch retailers*. Amsterdam.
- Riisgaard, L. (2007). *What's in It for Labour? Private Social Standards in the Cut Flower Industries of Kenya and Tanzania* (DIIS Working Paper No. 2007/16). Copenhagen.
- Riisgaard, L. (2009a). Global Value Chains, Labor Organization and Private Social Standards: Lessons from East African Cut Flower Industries. *World Development*, 37(2), 326–340. <http://doi.org/10.1016/j.worlddev.2008.03.003>
- Riisgaard, L. (2009b). *Labour Agency and Private Social Standards in the Cut Flower Industry*. Roskilde University.
- Riisgaard, L., & Gibbon, P. (2014). Labour management on contemporary Kenyan cut flower farms: Foundations of an industrial-civic compromise. *Journal of Agrarian Change*, 14(2), 260–285. <http://doi.org/10.1111/joac.12064>
- Rikken, M. (2011). *The global competitiveness of the Kenyan flower industry. Global Competitiveness Of The Flower Industry In Eastern Africa*. Nairobi. Retrieved from [http://www.kenyaflowercouncil.org/pdf/VC5 Global Competitiveness Kenyan Flower Industry - ProVerde.pdf](http://www.kenyaflowercouncil.org/pdf/VC5%20Global%20Competitiveness%20Kenyan%20Flower%20Industry%20ProVerde.pdf) [http://www.kenyaflowercouncil.org/pdf/VC5 Global Competitiveness Ke](http://www.kenyaflowercouncil.org/pdf/VC5%20Global%20Competitiveness%20Kenyan%20Flower%20Industry%20ProVerde.pdf)
- Rikken, M. (2012). *Kenya Flower Industry Global Competitiveness Report*. Nairobi.
- Rikken, M., & Hulst, J. Van Der. (2012). *Study Kenyan-Dutch Horticultural Supply Chain*. The Hague.
- Rono, J. K. (2002). The impact of the structural adjustment programmes on Kenyan society. *Journal of Social Development in Africa*, 17(1), 81–98.
- RVO. (2016). *Paying a living wage A guide for companies*. The Hague: Netherlands Enterprise Agency.
- Salami, A., Kamara, A. B., & Brixiova, Z. (2010). Smallholder Agriculture in East Africa: Trends, Constraints and Opportunities. *Working Paper Series*, (April), 52. <http://doi.org/10.1111/j.1467-937X.2007.00447.x>
- Schapiro, M. O., & Wainaina, S. (1989). Kenya: A Case Study of the Production and Export of Horticultural Commodities. In *Successful Development in Africa: Case Studies of Projects, Programs and Policies*. Washington, DC.
- Smith, S., Auret, D., Barrientos, S., Dolan, C., Kleinbooi, K., Njobvu, C., ... Tallontire, A. (2004). *Ethical trade in African horticulture : gender , rights and participation* (IDS Working Paper 223 No. 223). Brighton.
- Swamy, G. (1994). Kenya: Patchy, intermittent commitment. In I. Husain & R. Faruquee (Eds.), *Adjustment in Africa: Lessons from country case studies* (pp. 193–237). Washington, DC: The World Bank.
- Tharau, C. (2003). *An Economic Analysis of the Major Obstacles to Optimal Exploitation of Kenya's Cut Flower*. University of Nairobi.
- The World Bank. (2008). *World development report 2008: agriculture for development*. Washington D.C., USA. <http://doi.org/10.1596/978-0-8213-7233-3>
- The World Bank. (2009a). *Air Freight A Market Study With Implications For Landlocked Countries*.

Washington, DC.

- The World Bank. (2009b). *Awakening Africa's sleeping giant: Prospects for commercial agriculture in the Guinea Savannah Zone and beyond*. The World Bank (Vol. 1). <http://doi.org/10.1596/978-0-8213-7941-7>
- The World Bank. (2018). Kenya GDP growth (annual %). Retrieved May 28, 2018, from <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=KE>
- Thoen, R., Jaffee, S., Dolan, C., & Waithaka, L. (1999). *Equatorial Rose: The Kenyan - European Cut Flower Supply Chain*. The World Bank.
- Union Fleurs. (2018). Union Fleurs: Mission & Objectives. Retrieved May 30, 2018, from http://www.unionfleurs.org/php/about-union-fleurs/index.php?doc_id=133
- UPOV. (2005). *UPOV Report On The Impact Of Plant Variety Protection*. Geneva: International Union for the Protection of New Varieties of Plants.
- Van Der Velden, I., Saab, W., Gorter, J., Monsjou, W. van, Bolton, J., & Evans, G. (2017). *Driving Innovations in Smallholder Engagement. Insights in Service Delivery and Finance*. IDH.
- Van Haren, N., Berends, S., Wiertsema, W., Van Der Gaag, P., & Verwer, S. (2007). *Trade matters! The flower industry in Kenya and Ethiopia*. Both ENDS and IUCN National Committee of the Netherlands.
- Van Liemt, G. (1999). *The world cut flower industry: Trends and prospects*. International Labour Office Geneva, Switzerland.
- Vasagar, J. (2006). How Kenya is caught on the thorns of Britain's love affair with the rose. Retrieved May 5, 2018, from <https://www.theguardian.com/uk/2006/feb/13/gifts.kenya>
- Westerman, E., Splinter, G., & Mukindia, C. (2005). *Partnership for Market Access; Towards a Sustainable Market-oriented Horticultural Sector in Kenya. The floriculture sector in Kenya* (Position Paper). Wageningen UR.
- Whitaker, M., & Kolavalli, S. (2006b). Floriculture in Kenya. In V. Chandra (Ed.), *Technology, Adaptation, and Exports - How some developing countries got it right* (pp. 335–367). Washington, DC.: The World Bank.
- Whitaker, M., & Kolavalli, S. (2006a). Floriculture in Kenya. In V. Chandra (Ed.), *Technology, Adaptation, and Exports - How some developing countries got it right*, ed. V. Chandra (pp. 335–367). Washington, DC.: The World Bank.
- Wijnands, J. (2005). *Sustainable International Networks in the Flower Industry. Bridging Empirical Findings and Theoretical Approaches*. International Society for Horticultural Science (ISHS). The Hague.
- Wikipedia. (2018). Fertigation. Retrieved May 29, 2018, from <https://en.wikipedia.org/wiki/Fertigation>
- Williams, A. (2007). *Comparative Study of Cut Roses for the British Market Produced in Kenya and the Netherlands. Précis Report for World Flowers*. Cranfield.
- Wilshaw, R., Sahan, E., Boyle, G., Knaggs, K., & Neil McGregor. (2013). *Exploring the links between international business and poverty reduction*. Oxford. Retrieved from <https://www.oxfam.org/sites/www.oxfam.org/files/rr-exploring-links-ipl-poverty-footprint-090513-en.pdf>
- Zwager, H. (2005). *The Flowering Dutchman*. Victoria: Trafford Publishing.
- Zylberberg, E. (2013). Bloom or bust? A global value chain approach to smallholder flower production in Kenya. *Journal of Agribusiness in Developing and Emerging Economies*, 3(1), 4–26. <http://doi.org/10.1108/20440831311321638>

Annex 1: Policy, Legal and Regulatory Framework⁶⁵

- **Constitution:** The Kenyan Constitution (2010) created two levels of governance structure, the national government and 47 county governments. The role of the national government is to develop an enabling environment through policy formulations, including agricultural policy, capacity building, finance and technical assistance to the counties. These are discharged through the Ministry of Agriculture, Livestock and Fisheries. Agricultural functions and services rendered by the county governments include crop and animal husbandry, livestock sale yards, abattoirs, plant and animal disease control, fisheries and cooperative societies.
- **Vision 2030:** the Kenyan government developed Vision 2030 as the country's development blueprint, covering the period 2008–2030, with the aim of transforming the country into an industrialized, middle-income country with a rapid GDP growth rate of ten per cent per annum. The Vision identifies challenges facing the agricultural sector and proposes key strategies to address those challenges. Among the challenges identified are: productivity, inadequacy of land use, markets and low value addition, whereas the proposed solutions include increasing market access through value addition. This may include processing, packaging and branding, which increase value addition of agricultural products; another suggestion is including reforming institutions in the sector (e.g. cooperatives, regulatory bodies, research institutions) to facilitate growth; provision of widely accessible inputs and services to farmers and pastoralists (fertilizer cost reduction, irrigation, seed improvement). An important reform proposed in the Vision is the harmonization/review of the multiple laws and policies that overlap or create ambiguities in the agricultural sector.
- **Agriculture Sector Development Strategy (ASDS) 2009–2020:** This strategy was launched by the government following the Vision 2030 and the rationale was to position the agricultural sector as one of the key sectors to deliver the ten per cent per annum growth rate as envisaged in the Vision 2030. The strategy foresees a food security and prosperous nation by 2020 and aims at transforming the agricultural sector into “an innovative, commercially oriented and modern agriculture.”
- **Crops Act 2013:** This act consolidates and repeals the various statutes relating to crops, with the aim of accelerating growth and development of agriculture as a key driver of Kenya's economy. This act seeks to improve the competitiveness of crop sub-sector by increasing efficiency in value chains, streamlining regulation and rationalizing the taxation system
- **The Agriculture, Fisheries and Food Authority (AFFA) Act 2013:** The establishment of the AFFA as a successor of the former regulatory institutions that were merged into Directorates under the Authority effective August 2014 was a major development in the sector. The former Horticultural Crops Development Authority is now Horticultural Crops Directorate (HCD) falls under the jurisdiction of AFFA.
- **Kenya Agricultural and Livestock Research Act 2013:** Established the Kenya Agricultural and Livestock Research Organization aimed at coordinating and regulating agricultural research in Kenya especially in crops, livestock, genetic resources and biotechnology. Former agricultural institutions were streamlined and transformed into new thematic research institutes, all under the control of the Kenya Agricultural and Livestock Research Organization (KARLO). Under KARLO, the Horticultural Research Institute was established in 2014 and mandated to conduct research in horticultural crops (vegetables, flowers, fruits, and MAPS-garlic, mushrooms and chilli).

⁶⁵ This section has been compiled from: (CARE International Kenya, 2016; Mitullah et al., 2017; Opondo, 2002; Rikken, 2011).

- **ILO Declaration on Fundamental Principles and Rights at Work** was adopted in 1998. This Declaration is an expression of commitment by governments, employers and workers' organizations to uphold basic human values that are vital to social and economic life. This has been critical in ensuring that the flower sector in Kenya adheres to sustainable, decent and productive work ethics.

Annex 2: Historical overview of Kenya's Policies and Programmes (1964 -2015), with the main focus on agriculture

Policy	Development	Period Policies and Programmes
Development Plan	1964 - 1966	• Growth Oriented development strategy • High wage policy • Equitable income distribution • Population control • Kenyanization • Investment in education and training • Tripartite agreements (1964) • Redistribution of large agricultural farms
Sessional Paper No. 10 of 1965	1965 -	• Kenyanization Policy • Income redistribution
Development Plan	1966 - 1970	• Rapid economic growth and development • Income policy • Kenyanization • Wage restraint • Tripartite agreements (1970) • Deepening agriculture • Back-to land policy • Rural industrialization
Sessional Paper No 10 of 1973	1973 -	• Economic growth • Fiscal measures (aimed at changing the relative factor prices in favour of labour) • Provision of infrastructure and other amenities • Rural work programmes • Reorientation of education and training systems to vocational and technical training areas • Improvement of labour market information administration • Productivity promotion • Tripartite agreements (1979) • Promotion of informal and jua kali sector
Sessional Paper No 1 of 1986	1986 -	• Economic growth • Equitable distribution of income • Productivity growth • Promotion of informal and jua kali sector • Investment in education and training • Reorientation of education and training systems to vocational and technical training areas • Promotion of agriculture and manufacturing sector • Private sector development • Employment and labour market policies
Development Plan	1984 - 1988	• District Focus for Rural Development Strategy • Active labour market policies • Economic growth and equitable distribution of income • Efficient utilization of resources • Focus on agriculture • Export-oriented industrialization
Sessional Paper No. 2 of 1992	1992 -	• Small enterprise and jua kali development • Facilitating access to credit, non-financial promotion programmes, market and marketing information, enhancing legal and regulatory environment, and promoting technological development and transfer amongst the MSEs

Sessional Paper No. 1 of 1994	1994 -	- Measures for accelerated economic growth and development - Macroeconomic framework - Enhancing acquisition and efficient use of labour market information
Development Plan	1994 - 1996	- Job creation in the rural economy, especially agriculture and urban informal sector - Macroeconomic management - Reliance on market forces to mobilize resources for high and sustained growth - Government role limited to provision of infrastructure and regulatory framework
Development Plan	1997 - 2001	- Rapid industrialization for sustainable development - Macroeconomic management - Industrialization through private sector investment - Promotion of MSEs - Improvement of working conditions - Enhancing participation of employers and workers in promoting industrial harmony - Liberalization of the labour market (removal of wage guidelines)
Sessional Paper No. 2 of 1997	1997	- Industrialization - Promotion of growth and development of MSEs - Infrastructural development - Private sector participation - Productivity promotion
Development Plan	2002 - 2008	- Macroeconomic interventions and fiscal measures for high and sustained economic growth - Productivity promotion - Growth and development of the MSEs
Economic Recovery Strategy Paper	2003 - 2007	- Private and foreign investment for high and sustained growth - Sound macroeconomic framework/macroeconomic stability - Good governance and rule of law - Infrastructure development - Investment in human capital through education, training and health care - Legal and legislative reforms
Vision 2030	2008 - 2030	- Macroeconomic framework - Prudent fiscal policies
Medium Term Plan I	2008 - 2012	- Public expenditure management - Private sector investment
Medium Term Plan II	2013 - 2017	- Revitalization of agriculture - Infrastructure development - Governance reforms - Policy, legal and institutional reforms - Sound human resource management - Productivity promotion - Promotion of life-long training and education - Establishment of human resource database - Establishment of new technical training institutions - Enhancement of closer collaboration between industry and training institutions

Source: Omolo (2010) updated and adapted in Mitullah et al. (2017)

Annex 3. Key Sector Stakeholders⁶⁶

National

- **Ministry of Agriculture, Livestock and Fisheries:** has a mandate to develop national agricultural legislation, regulations and policies with an interest in increased commercialization and competitiveness of the agricultural sector;
- **Council of Governors, Agriculture and Lands Committee:** Council of Governors is composed of the 47 County Governors, who, within the Agriculture and Lands Committee, handle all matters relating to sustainable agricultural practices at the county level. It monitors national legislation and policy and proposes amendments to align them with the Constitution of Kenya 2010. The Council of Governors functions through inter-county forums, intergovernmental (national and county) forums and engages with the various stakeholders to promote the devolution of agriculture and elevation of agriculture into a viable business for the farmer. The Council of Governors, in conjunction with the Ministry of Agriculture, Livestock and Fisheries, has established a Joint Agriculture Secretariat (JAS) to provide a platform for consultation and cooperation across 47 County Governments and coordinate the implementation of the decisions made by the Joint Agriculture Sector Consultation and Cooperation Mechanism (JASCCM).
- **County Horticulture Committee:** one of the intergovernmental forums that focuses on horticulture and aims to develop a tractability system for KS1758 compliance on the county level. It feeds into the work of the intergovernmental group that acts as a proxy between the county and national government and consists of Intergovernmental Secretariat, Intergovernmental technical working group (consisting of following units: M&E and Communication, Food Security and Capacity Building, Projects and Farm Inputs, Policy and Legislation), and Commodity Working Group.
- **Horticultural Crops Directorate (HCD):** mandated to facilitate development, promotion, coordination and regulation of the horticultural sub-sector with an interest in facilitating growth of a commercially oriented horticulture sub-sector. HCD is also responsible for issuing export licences for the flower companies.
- **Kenya Plant Health Inspectorate Service (KEPHIS):** a regulatory institution that provides science-based regulatory service by assuring the quality of agricultural inputs and produce with an interest in contributing to agricultural productivity through control of pests, weeds and invasive species. KEPHIS officers are responsible for conducting final controls of the flowers before being exported. If the flowers pass the control, a KEPHIS agent provides the handling/exporting agent with the phytosanitary certificate, allowing the batch to be exported. The presence of the insects on flowers is among most frequent reasons for their rejections. Thrips, caterpillars and whiteflies are among most common insects found during the controls.⁶⁷ Roses are among the most frequently rejected flowers (Research Team, 2017).

⁶⁶ This section has been compiled from: (CARE International Kenya, 2016; Cunden & Van Heck, 2004; EPC Kenya, 2018; Evers et al., 2014; FPEAK, 2018b, 2018a, FSI, 2018a, 2018b; Horticultural News, 2017; KEPHIS, 2016; KFC, 2017a, 2017b; Kimenya, 1995; LNKG, 2018; Mitullah et al., 2017; Own interviews, 2015; Perry, 2012; Riisgaard, 2009a; Union Fleurs, 2018).

⁶⁷ Dudutech (K) Ltd – an Integrated Pest Management (IPM) company is a British-Kenyan cooperation that provides natural crop protection solutions to the Kenyan horticultural industry. Dudutech is based in Kenya while its parent company is registered in the UK. Dudutech (K) Ltd has developed a range of natural enemies (bugs) that can be used to fight (eat) some type of insects that feed on flowers. It is a more environmental- and health-friendly solution, although it remains more expensive than conventional chemicals. Another negative aspect of this solution is the fact that some of the natural enemies that are developed by Dudutech strongly resemble red spider mites, which are not allowed if the product is to be exported. That means that,

KEPHIS is also responsible for the implementation of a Plant Variety Protection (PVP) scheme.

- **KALRO Horticultural Research Institute:** mandated to conduct research in horticultural crops mainly vegetables, fruits, flowers and Medicinal and Aesthetic products (MAPS) with an interest in generating information, innovative technologies for enhanced horticultural value chains, market development and facilitate conducive horticultural policy environment. KARLO supports research relevant for smallholder farmers. However, with no funding for the flower research through KARLO, its main focus is on edible products. Large- and medium-sized flower companies rely on their mother companies for R&D and have little interest in supporting local flower R&D.
- **Kenya Flower Council (KFC):** KFC is a voluntary association of independent growers and exporters of cut flowers and ornamentals formed in 1996. The main aim is to foster “responsible and safe production of cut flowers in Kenya with due consideration of workers welfare and protection of the environment.” KFC recognize two types of membership: Producer Members – companies involved in the production of flowers and ornamentals – currently 102 farms; and Associate Members – companies (both local and international) that are involved in the flower sector through the provision of farm inputs and other affiliated services. Currently, KFC has 81 associate members. KFC has developed its own certification scheme (see below) and through enterprising additional activities, it supports a system of about 3,000 small-scale outgrowers, producing summer flowers for niche market export, as well as supported the florists and flower hawkers (mostly in Nairobi) to gain formal status by forming an association, gaining recognition and licenses.
- **Fresh Produce Exporters Association of Kenya (FPEAK):** formed in 1975, FPEAK is a trade association representing growers, exporters and service providers in the horticulture industry. Similar to the KFC, FPEAK recognizes two types of membership: Ordinary Members – companies directly involved in exporters of fruits, vegetables or flowers; and Affiliate Members – firms and/or people serving the industry. Currently, FPEAK has 17 ordinary members that work in the flower sector, 77 in the fruit and vegetable sector and 11 Affiliate Members.
- **Kenya Horticultural Council (KHC):** KHC was established in 2016 and officially launched in July 2017, as an umbrella business membership organization formed by the Kenya Flower Council (KFC) and Fresh Produce Exporters Association of Kenya (FPEAK). Its objective is to support the industry to comply with various international market standards and, in particular, with the implementation of the Kenyan national horticulture standards for flowers and ornamentals (KS 1758 Part 1) and fruits and vegetables (KS 1758 Part 2).
- **Export Promotion Council (EPC):** Kenya’s premier institution in the development and promotion of export trade. Established in 1992, EPC’s primary objective was to address bottlenecks faced by exporters and producers of export goods and services with a view to increasing the performance of the export sector. The Council was therefore established for the purpose of giving an outward orientation to an economy that was hitherto inward looking. Over time, the EPC has fully embraced the mandate of coordinating and harmonizing export development and promotion activities in the country, providing leadership to all national export programmes. Today, EPC is the focal point for export development and promotion activities in the country. It is supported by Japan International Cooperation Agency (JICA), Dutch Centre for the Promotion of Imports from developing countries (CBI), and International Trade Center.

although harmless for the flowers, they have to be fully removed from them before the KEPHIS control, as they may lead to the rejection of the ‘infected’ batch (Bolo, 2006; Own interviews, 2015).

- **National Taskforce on Horticulture (NTH):** a group of key stakeholders feeding into policymaking process related to horticulture. It composes of KEPHIS, HCD, KFC, EPC, FPEAK, Jomo Kenyatta University of Agriculture and Technology, University of Nairobi, Pest Control Products Board, Ministry of Agriculture (Horticulture Department), Kenya Bureau of Standards, National Environment Management Authority, Kenya National Federation of Agricultural Producers, Agrochemicals Association of Kenya, Ministry of Trade & Tourism.
- **Presidential Round Table (PRT):** it is held by the President of Kenya twice a year and brings together the Executive, Legislature, Judiciary, County governments and the Private Sector under the umbrella of Kenya Private Sector Alliance (KEPSA) to discuss issues affecting the local business environment. The flower sector is represented by the Kenyan Flower Council in this forum.
- **Kenya Plantation and Agricultural Workers (KPAUW):** trade union that represents flower farm workers and negotiate the Collective Bargain Agreements (CBA) on their behalf. Although, KPAUW is not necessary perceived as efficient, reasonable and transparent, it has played an important role in improving working conditions and raising wages. Not all workers belong to the trade union – many workers prefer to deal with their problems in-house through different committees or feel there is no need to join the union.

Local

- **Lake Naivasha Growers Group (LNGG):** a voluntary association of flower growers from the Lake Naivasha region founded in 1997. Through their advocacy work, LNGG ensures that growers' interests are represented in the management of Lake Naivasha and its environs. LNGG mission is "to promote the conservation of the natural resources in and around Lake Naivasha, thereby ensuring the commercial sustainability of the areas horticultural growers, through the fostering of best farming practices amongst its members for the benefit of all stakeholders."
- **Mount Kenya Growers Group (MKGG):** a voluntary and loosely organized association of flower growers in the Mount Kenya region. They meet four times a year.

International

- **Union Fleurs:** a voluntary association of international flower trade association (like KFC) based in Brussels. The general mission of Union Fleurs is to represent, promote and defend the interests of the international floricultural trade.
- **Floriculture Sustainability Initiative (FSI):** a market-driven initiative of The Sustainable Trade Initiative (IDH). FSI brings together members of the international floriculture supply-chain to collaborate, improve practices and drive positive change towards the sustainable production and trade of flowers and plants. Its ambition is to reach 90 per cent sustainable flowers and plants by 2020.
- **Horticulture Council of Africa (HCA):** HCA is a network established by member country national associations to address constraints the region is facing in maintaining competitiveness in the horticultural export market, especially in the European markets. The vision for Horticultural Council of Africa has been developed to connect all members' national horticulture associations with a common aspiration and purpose.
- **Royal FloraHolland:** a Dutch conglomerate of florists and the largest flower auction in the world. The auction is the central marketing hub for flowers, involving wholesalers supply florists and other traditional retailers. It is a crucial step in the indirect floriculture value chain.

- **The International Union for the Protection of New Varieties of Plants (UPOV):** an intergovernmental organization with headquarters in Geneva (Switzerland) established by the International Convention for the Protection of New Varieties of Plants. The Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991. The UPOV Convention provides the basis for members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: the breeder's right.

Annex 4: Key Quality Standards in Kenya's Floricultural Sector

Various compliance standards have been developed both at the international and domestic levels to enhance product quality and safety. Export marketing channels for floricultural produce include direct exporting to foreign countries or indirect exporting, where producers sell to exporting companies or agents who ensure quality and safety standards before exporting. Individual certification is costly to small-scale producers who, as a result, are contracted as groups by exporters/agents and comply with market standards through multiple production sites under a Quality Management System. Below, the most popular certifications and standards are listed.⁶⁸

- **Phytosanitary (plant health) certification by KEPHIS** for plants and plants products exports is giving assurance of compliance with importing country requirements.
- Kenya Bureau of Standards (KEBS) developed the **Horticulture Industry Code of Practice KS 1758** as a national guideline to all producers on Good Agricultural Practice. KS 1758 Part 1 refers to national horticulture standards for flowers and ornamentals; while KS 1758 Part 2 regulate fruits and vegetables sub-sector. Kenya Horticultural Council (KHC) has been established in 2016 to support the industry to comply with the Kenyan national horticulture standards KS 1758.
- **The International Code of Conduct for Cut Flowers (ICC)**: it was developed by a coalition of European NGOs and the International Union of Food and Agricultural Workers (IUF) in 1998. The ICC is a base code (it does not have a standard organization behind it) that can be adopted by any standard scheme. It contains criteria on human rights, labour conditions and basic environmental criteria (Riisgaard, 2009b).
- **GlobalGAP**, also known as EUREPGAP, is a code developed in Europe specific for the agricultural (including aquaculture) sectors around the world. EUREPGAP began in 1997 as an initiative of the Euro-Retailer Produce Working Group with the aim of harmonising supply chain standards worldwide for good agricultural practice (GAP). EUREPGAP was changed to GlobalGAP in 2000.
- **Kenya GAP International** legally owned by FPEAK is benchmarked to Global GAP. It is the only comprehensive (vegetables, flowers, fruits) quality assurance scheme from the African continent to acquire EurepGAP/GlobalGAP equivalence. It is also unique in the sense that it incorporates small-scale farming techniques and concerns. The trade mark guarantees that the product has been produced, transported, graded, packaged and marketed under strict adherence to all principles of Good Agricultural Practices.
- **Kenya Flower Council Code of Practice Silver**: the code originated as a technical standard addressing primarily environmental and pesticide related issues, but recent editions of the code have been much more comprehensive in their coverage of social issues.
- **Kenya Flower Council Code of Practice Gold**: the highest certification of the Council. It awards companies with the highest accreditation for environment, health & safety, good agricultural practices and quality management systems, applied and monitored daily. This gold standard is based on the ISO 14001 (environmental) framework and other similar environmental systems.
- **Fair Flowers Fair Plants (FFP)**: the standard deals in particular with growers, traders, retailers and consumers in the flower industry. Emphasis is placed on the environment, on issues as

⁶⁸ For more details regarding different certifications and their comparison see: Barrientos et al. 2001; Nelson et al. 2007; Potjer et al. 2015; Riisgaard 2007; Rikken 2011; Wilshaw et al. 2013.

crop protection, fertilizers, energy and water used for production processes throughout the company, and of the separation of wastewater. Social issues as freedom of association, no employee discrimination, minimum wages, working hours, healthy and safe working conditions, no child labour and no forced labour are also emphasized in the standard.

- **Milieu Project Sierteelt (MPS)** Environmental Protection certification, a combined environmental and labour code, initially based on environmental standards for pesticide and water use, but later expanded to include core ILO standards and parts of the Universal Declaration of Human Rights. The Floriculture Environmental Project (MPS) originated as a technical standard to reduce the environmental impact of cut flower production but added an optional social chapter based on the Universal Declaration of Human Rights and ILO Conventions in 2001. The MPS environmental standard, which focuses on pesticide and water use, leads to grading as MPS-A, B, or C. The MPS Social Chapter (known as MPS –SQ) has been benchmarked against the multi-stakeholder International Code of Conduct for Cut Flowers (MPS, 2018).
- **Fair Trade Labelling Organization (FLO)** standards are applied to ensure that contracts, prices, and other trading practices continue to reflect the goals of fair trade along the entire product value chain. FLO sets standards for producers and traders all around the world. It then inspects and certifies producers against the standards, and audits the flow of goods between producers and importers. Producer groups (co-operatives or associations of smallholder farmers) that meet these standards are then certified as Fair Trade producers. FLO has also developed general standards for small producer organizations, hired labour, and contract production that are applied to all producers and products and additional product specific standards for certain crops.
- **The Ethical Trading Initiative (ETI):** ETI is an alliance of companies, trade unions and NGOs that promotes respect for workers' rights around the globe. ETI members agree to adopt the ETI Base Code of labour practice, which is based on the standards of the International Labour Organisation (ILO) (Ethical Trading Initiative, 2018).
- **The Flower Label Programme** is an association carried by human rights organizations, trade unions, flower retailers and producers. It guarantees socially and environmentally responsible conditions in worldwide flower production by using the instrument of certification. The Flower Label Program implements ten principles made available in its International Code of Conduct (ICC) (International Trade Centre, 2011).
- **Rainforest Alliance:** a network of farmers, foresters, communities, scientists, governments, environmentalists, and businesses dedicated to conserving biodiversity and ensuring sustainable livelihoods. They have recently merged with UTZ, a Netherlands-based programme and label for sustainable farming worldwide. Their joint aim is to rejuvenate agricultural landscapes conserve forests, foster sustainable livelihoods and build climate resilience across vulnerable regions; transform business practices and drive supply chain innovation, and engage consumers in positive change (Rainforest Alliance, 2018).
- **Tesco Nature, IKEA Standard:** these are individual supermarkets' certifications and standards. They are used in direct flower trading to assure that the quality of the product matches the supermarket's internal and general international standards.

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