

## CASE STUDY

# The Kenyan Flower Subsector

A model of enhanced competitiveness through mandatory and voluntary sustainability standards

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July 2024

This case study takes a deep look at the experience of the celebrated flower and ornamentals industry in Kenya. The authors explore the lessons learned from the benchmarking of a private voluntary sustainability standard for flowers (KFC FOSS Silver) and a public mandatory standard in the Kenyan horticulture sector (KS 1758), as well as the unique relationship between the Kenyan Flower Council and the Kenyan government, which has served to shape the horticulture sector toward more sustainability and competitiveness. This case study also looks at how this collaborative approach can contribute to the transformation agenda of other key agricultural value chains in the country, such as grains.

## Introduction

### Blooming Success: The expansion of Kenya's flower subsector

Kenya is among the world's top five cut-flower and ornamentals producers and exporters (ResourceTrade.Earth, 2023). The flower sector is a major contributor to the country's economy, as it represents about 1.25% of GDP and accounts for more than 70% of total horticulture export value, with a value of USD 1.09 billion in 2023 (Mordor Intelligence, 2024). The sector is an important source of livelihoods, as it provides employment for more than 500,000 people and impacts an estimated 2 million people indirectly, mostly in rural areas (Central Bank of Kenya, 2021; FloralDaily, 2023).

The flower industry has put Kenya on the world map, as the product enjoys unmatched demand based on quality and year-round availability (Langmead, 2023). Astride the equator, the country enjoys all the favourable conditions for floriculture, characterized by a sea level rise to 2,400 metres, direct sunshine most of the year, and fertile soils, which make it possible



to grow diverse cut-flower varieties, including roses, carnations, alstroemeria, and a wide range of summer varieties such as gypsophila, lilies, eryngiums, and statice. These varieties are mainly produced in the Lake Naivasha, Mt. Kenya, Thika, Kiambu, Athi River, Kitale, Nakuru, Kericho, and Uasin Gishu regions.

The European Union (EU) is the major importer of Kenyan flowers, accounting for nearly 70% of total exports. The main importing markets include the Netherlands, accounting for 43.3% of Kenya's exports, followed by the United Kingdom, Germany, and Norway, with export shares of 17.1%, 5.8%, and 5.6%, respectively (Mordor Intelligence, 2024). About half of all exported flowers from Kenya are sold in Dutch auctions, with the rest sold directly to supermarkets and florists in the main consuming markets in Europe, North America, and Asia (Herbling, 2020). Kenya has also become the largest trading partner in direct rose imports to Japan, a highly discerning market valued at USD 6.19 million in 2023 (UN Comtrade Database, 2024).

The floriculture industry began to take shape in the 1980s, when the Kenyan government started to recognize the economic importance of the sector and, through the Ministry of Agriculture, invested in developing business-friendly policies, regulations, and guidelines to attract investments and increase production (Mwangi, 2018). Indeed, production has expanded rapidly in the past 3 decades, growing from 10,946 tonnes of cut flowers exported in 1988 to 113,165 tonnes in 2021, representing a compound annual growth rate of 7.33% (Horticultural Crops Directorate, 2021). This expansion has been attributed to solid investments from both the government and the private sector to add value through knowledge, skills, market intelligence, modern technologies, and innovation to benefit flower production (i.e., through greenhouses, micro irrigation systems, and the cold chain), as well as the availability of a hard-working and well-educated workforce.

## The Kenya Flower Council: An example of leadership in practice

Flower growers and exporters joined forces in 1996 to establish the Kenya Flower Council (KFC), a private sector-led organization. Kenyan growers, exporters, and cut-flower and ornamental value chain actors are eligible for voluntary membership. Its mission is to promote the floriculture industry's economic, social, and political interests by actively participating in determining and implementing policies governing the sector.

The KFC has become the voice of the flower industry in Kenya, ensuring the inclusivity of all flower growers and value chain actors, from small- and large-scale farmers to exporters and local florists. The organization represents the interests of flower value chain actors locally and internationally and has played a key role in the growth and development of the industry, particularly in staying abreast of relevant socio-economic and environmental developments in the marketplace.

In response to the growing number of European flower industry codes of practice, most notably the Dutch MPS code, the KFC secretariat developed a voluntary sustainability standard (VSS) known as the KFC Code of Practice in 1996. The Code of Practice is a self-regulation mechanism that aims to guide the Kenyan flower industry in carrying out its



operations responsibly while complying with the requirements established in export markets and avoiding the duplication of efforts (Collinson, 2001). In 2005, the KFC became the first self-regulation body to attain accreditation by the South Africa Accreditation Services, which audits the organization for recertification every year. This accreditation allows the KFC to certify flower plantations according to the requirements of the industry code (KFC, 2022).

Over the years, Kenya's horticultural sector has faced reputational challenges. In 2013 the EU restricted the importation of Kenyan horticultural products, including flowers, following the detection of maximum pesticide residue levels exceeding the legal limit at Europe's ports of entry (Pasquali et al., 2021). At the local level, horticultural products, including vegetables and fruits being sold in markets, were contaminated with heavy metals and pesticides, affecting the produce's and workers' safety. The effects of local economic and political disruptions also negatively affected the reputation of the industry in export markets, which cost the country millions of dollars in export losses (Machuki, 2023).

In 2014, considering the reputational challenges associated with pesticide residue levels and other sustainability challenges faced by the industry, the KFC updated the standard and renamed it the "Flower and Ornamental Sustainability Standard (FOSS)." The KFC FOSS standard provides measures for continuous improvement, with two levels of compliance: (i) KFC Silver, upon compliance with the mandatory requirements such as worker terms and conditions, health and safety, and environmental criteria, and (ii) KFC Gold for farms that voluntarily exceed the set requirements for social standards, biodiversity and environmental conservation, training, and others (FloralDaily, 2024a; KFC, 2023).

The KFC has also developed solid engagement with the Government of Kenya, as it has been part of bilateral and multilateral trade negotiations with the EU, the East African Community Economic Partnership Agreement, and others, advocating for the needs of the horticulture and floriculture subsectors (Embassy of the Republic of Kenya in Japan, n.d.). Over time, the KFC FOSS has become a foundational tool to vouch for and communicate industry commitments on sustainability issues, such as the responsible use and disposal of water for irrigation, the safe and responsible use of chemicals and fertilizers, environmental conservation, and workers' welfare. Certified members represent 80% of the flowers grown and exported from Kenya (KFC, n.d.).



Flower farm, Naivasha, Kenya, June 2023.



The KFC has also signed agreements with several industry standard holders to benchmark their standards or enter into mutual recognition agreements. In 2015 the KFC FOSS obtained mutual equivalence with GLOBALG.A.P.'s Integrated Farm Assurance standard, which focuses on flowers and ornamentals; to date, the benchmarking is still in place. Furthermore, since 2017 the KFC FOSS standard has been part of the Floriculture Sustainability Initiative's (FSI) Basket of Sustainability Standards, which includes 16 comparable VSSs that comply with Good Agricultural Practices, as well as environmental and other basic social requirements (FSI, 2024). The FSI non-competitive approach to creating a basket of standalone standards, such as the KFC FOSS, GLOBALG.A.P., Fairtrade International, and others, was a significant boost for the industry, as it provided a platform to compare schemes in a neutral and independent way so they can be recognized by supply chain actors as responsible sources. The initiative has also worked as a platform to encourage markets to demand products that stand out for their integrity. This, in turn, has created a win-win situation for sustainability in the flower sector—not only in Kenya but globally.

## Code of Practice in the Horticulture Sector: Benchmarking between the Kenya Standard 1758 and the KFC Silver Standard

Conversations among industry actors, civil society, and the government on increasing food safety, sustainability, and transparency concerns in the horticulture sector, which also covers the flower subsector, led to the development of the Kenya Standard 1758 (KS 1758) in 2015, a mandatory code of practice for Kenya's horticulture industry seeking to minimize risks to the country's reputation as a global leader in the horticulture sector (Pasquali et al., 2021) and guarantee the supply of high-quality, healthy, and safe horticultural products for both the domestic and international markets.

The standard, developed by the Ministry of Agriculture and Livestock Development, along with the Kenya Bureau of Standards and with the support of private stakeholders such as exporters and industry associations, including the KFC, outlines the sanitary and safety criteria for the production, handling, and sale of flowers, ornamentals, fruits, vegetables, herbs, and spices. The standard is composed of one part covering floriculture (launched in 2015) and a second covering fruits and vegetables (launched in 2017).

All horticulture value chain actors in Kenya—including breeders, propagators, producers, and traders—have been legally required since 2021 to comply with KS 1758, which is administered by a secretariat hosted at the Agriculture and Food Authority (AFA – Horticulture Crops Directorate) and domiciled at the Kenya Bureau of Standards. The standard stipulates the hygienic and safety requirements during the production, handling, and marketing of all horticultural crops grown, processed, or marketed in Kenya, as well as those exported from Kenya. It also was an innovative development, as it included social and environmental aspects that were not part of public standards previously developed in Kenya—including prevention of child and forced labour, good working conditions, water and soil management, control of pests and diseases, and proper storage and labelling of pesticides and hazardous chemicals, among others (Pasquali et al., 2021; Society of Crop Agribusiness Advisors of Kenya, 2018).



KS 1758 also provides implementation guidelines that define the rules for trainers, laboratories, inspectors, and certification bodies participating in the implementation and conformity assessment. Certification to KS 1758 is achieved through five accredited certification bodies. The AFA issues certificates of registration and compliance after a designated crop inspector from an accredited certification body has visited and inspected the site and confirmed that it complies with the standard's requirements. Certificates of compliance with KS 1758 are also required to obtain and maintain export licences (Pasquali et al., 2021).

KS 1758 resulted from a multistakeholder effort, and the Kenyan government has acknowledged that institutions involved in regulating the horticulture industry could benefit from working together to reduce duplication and overlap of functions. In this context, part one of the mandatory public KS 1758 covering floriculture production has been benchmarked with the KFC FOSS standard, a private-led voluntary standard. This recognition from the government was possible given the scope of the KFC FOSS standard, which already covers aspects beyond the minimum requirements consigned in KS 1758 part one.

This collaboration and benchmark is special, as it involved the development of a systems approach to innovative arrangements and processes that benefit all value chain actors, including the government. These include joint verification and certification procedures that have reduced costs and duplication of efforts, as well as fee collection and levy payment methods, which have eased procedures and reduced the administrative burden of compliance for horticultural producers and exporters.

As an example, flower producers that are already certified with the private voluntary KFC FOSS standard are not required to undergo additional audits or inspections from the national authorities to comply with the public mandatory KS 1758. The KFC delivers the certificate of compliance to both standards at the same time. This has facilitated combined audits and processes whereby a KFC audit resulted in multiple certificates, drastically reducing the costs of compliance as well as audit fatigue for farmers and producers.

The KFC also facilitates the collection of the Kenya Bureau of Standards levy, which was established in Kenyan regulations (Act of Parliament CAP. 496) and intended to promote the standardization of commodities and codes of practice in Kenya, saving time and facilitating administrative procedures for flower producers and the Kenyan Bureau of Standards.

Additionally, the KFC has collaborated with the Kenyan government on capacity building and service provision when it comes to the dissemination of KS 1758. For instance, it has offered training to horticultural producers, not only flower



Erika Luna and Steffany Bermudez from IISD, visiting a flower farm in Lake Naivasha, Kenya, in June 2023.



producers, on requirements for compliance with KS 1758—notably on criteria related to food safety—and the use of pesticides in horticultural value chains (Florinews, 2017; Fresh Produce Exporters Association of Kenya, 2018).

## A Unique Collaboration Between the Government and the Kenyan Flower Council: Enabling factors and perceived challenges

The International Institute of Sustainable Development (IISD) conducted online and in-person interviews with 13 flower and horticulture industry actors in Kenya from March to April 2023 to understand how the use and benchmarking of the KFC FOSS standard with KS 1758 has contributed to the development and growth of the horticultural sector, specifically flowers. These actors included government officials, journalists, standard-setting bodies, civil society, and relevant government regulatory bodies.

The interview questions focused on understanding interviewees' perspectives on the motivations and key factors behind the benchmarking process between the mandatory standard KS 1758 and the Kenya Flower Council Code of Practice—the KFC FOSS standard. The questions also explored the benefits of this process for value chain actors, especially producers, as well as the challenges associated with its implementation.

The responses were coded and anonymously classified into four categories:

- perceived motivations related to market access,
- enabling factors for public–private partnerships,
- perceived advantages of the benchmarking between the KFC FOSS and KS 1758, and
- challenges and limiting factors related to the enforcement of and compliance with standards.

The analysis of the interview responses revealed the following key points:

### 1. Perceived Motivations Related to Market Access

Overall, meeting international market demands was the main reason behind the development of industry standards in the flower sector, emphasizing safety aspects that then expanded to social and environmental ones. Over time, sustainability standards became essential for market access, requiring traceable products governed by transparency. To enhance market access, industry and government worked together to align sector requirements, expanding from coverage of only flowers to all horticultural produce, aiming to narrow gaps between local and export market producers while also promoting social benefits and mitigating agricultural risks. Following are the interviewees' responses regarding the three main motivations related to market access:



### **1.1 Meet International Markets' Demands**

According to the interviewees, the principal motivation leading to the development of a national standard for the horticulture sector—and, subsequently, for the benchmarking between KS 1758 and the KFC FOSS—was the need to meet the requirements of international markets and consumer demand, especially European customers and retailers. One respondent stated that European customers and retailers “increasingly demanded better coverage of social and environmental aspects in flower and horticultural production, particularly on the social aspect, while also ensuring the safety and quality of the product” (interview respondent, personal communication, 2023). In time, sustainability standards in the flower sector turned into a “prerequisite for accessing international markets, as customers demanded more traceable products where reasonable governance drives verification, integrity, transparency, and accountability” (interview respondent, personal communication, 2023).

### **1.2 Secure and Enhance Market Access for Kenyan Horticulture Products**

Consumers in international markets increasingly showed interest in “brands that tell stories of the journey travelled by the product and the socio, economic and cultural profiles of the producers and handlers at the source” (interview respondent, personal communication, 2023). The motivation to secure and improve market access for Kenyan horticultural producers led industry actors and the government to collaborate in addressing reputational risks faced by the industry. This collaboration resulted in the creation of a code of conduct in the floriculture sector and greater recognition of the KFC FOSS at both the national and international levels.

The government and industry actors were both motivated to demonstrate Kenya’s reputation as a source of sustainable and safe horticultural products. They sought to emphasize the importance of ensuring fair wages and good working conditions in the flower sector, reflecting the country’s commitment to labour standards and employee welfare.

### **1.3 Ensure a Level Playing Field for Producers Serving Local and International Markets**

According to some interviewees, “the mandatory standard KS 1758 was a necessary benchmark for local producers that were not exporting” (interview respondent, personal communication, 2023). Several factors motivated the government, including business development and aligning sector requirements to produce safe crops, use quality inputs, and narrow the gap in quality and economic opportunities between producers selling for export markets and those serving the local market. Additionally, there was a vision that “the creation of the KS 1758 would benefit the nation in the long term” (interview respondent, personal communication, 2023)—for example, by leading to social benefits such as lower costs for medical care for workers and producers due to less exposure to chemicals and fertilizers and mitigating other risks associated with poor agricultural practices in the sector.

## **2. Perceived Enabling Factors for Public–Private Partnerships**

The robustness and proactive leadership of the KFC have been pivotal in the development and use of sustainability standards in the Kenyan flower industry. The KFC’s leadership has also been critical in influencing national strategies and fostering cooperation among



farmers, the government, civil society, and trade unions while also reducing conflict and enhancing resource utilization and productivity. Following is a summary of interviewees' responses about major enabling factors for public–private partnerships for the use of standards in the floriculture sector.

## 2.1 Robustness of the Kenyan Flower Industry

A major enabling factor for the use of sustainability standards in the sector and public–private partnerships has been the organization and leadership of the flower industry under KFC's lead. Most interviewees signalled that the strength and the proactiveness of the industry have been critical for the development of codes of practice that align with local needs and conditions while complying with international requirements. According to one respondent, “the KFC has been successful because they've owned the processes; when challenges came up to the sector, they managed to react in a quick and efficient way” (interview respondent, personal communication, 2023). The initial KFC Code of Practice for the flower sector “was the result of a successful combination of local ownership and market demand” (interview respondent, personal communication, 2023).

The flower industry has invested considerable resources over time, and all value chain actors, including the government, have been willing to work together. “Despite the fact that many actors in the chain were competitors, they were willing to work with each other and invested in this collaboration” (interview respondent, personal communication, 2023). This shows that the “quality of the leadership and the value of the systems in place ... were above personal interests” (interview respondent, personal communication, 2023).

## 2.2 The KFC's Leadership Influenced National Strategies and Reduced Antagonism Between Interested Actors

The KFC's leadership is perceived as one of the elements that enabled the organization to influence and align with national strategies. The government sees the KFC as a strategic actor for the development of the flower industry, representing the interests of most flower producers in the country and serving as a point of consultation and a bridge between the interests of domestic value chain actors and consuming markets.



Mrs. Thao, owner of Phinna Flowers, Kenya.





Negotiations between the KFC and the government to regulate the industry under a common code of practice were possible because regulators recognized that the KFC “was ahead of the game at the local and international levels” (interview respondent, personal communication, 2023). This was in addition to the “KFC members’ commitments to adopting principles of good governance in electing their leaders, along with the professionalism of staff in charge of managing the operational activities” (interview respondent, personal communication, 2023).

According to the interviewees, coordination within the KFC and cooperation and trust among farmers, government, civil society, and trade unions have reduced conflict and antagonism, resulting in better use of available resources and improved productivity. Examples include the fact that the Kenya Plant Health Inspectorate, whose responsibility is the inspection and grading of final horticultural produce at the points of entry and exit to ensure compliance with the quality standards, has installed inspection facilities in major flower production regions to facilitate processes and reduce inspection times at the airport (KEPHIS, 2024). In addition, a national task force on horticulture, typically a competent government body, accepts regular and structured participation by the private sector.

This collaboration has also “helped to build trust, balance power dynamics, and foster confidence among players” (interview respondent, personal communication, 2023). Importantly, it has contributed to creating a safe, healthy, and conducive working environment, leading to an efficient way to address emerging challenges, as well as higher investment returns for all value chain actors.

### **2.3 The Industry’s Investment in Knowledge, Research, Innovation, and Human Resources**

Investment in knowledge, research, innovation, and technology has been a cornerstone of the industry’s development. Kenya is home to experienced international breeders such as Schreurs, Interplant Roses East Arica, and Bloomingdale (K) Ltd., which supply high-value, novel varieties that are suitable for growing in the East African region.

One of the key enablers mentioned by the interviewees is that the country enjoys an educated and hard-working workforce, which is a major asset for the flower industry. Many mentioned that both private sector actors and the government have made substantial investments in training to improve workers’ skills, well-being, and welfare. Moreover, the KFC has invested in recruiting expatriates to Kenya to leverage their expertise and strengthen the industry.

## **3. Perceived Advantages of the Benchmarking Between the KFC FOSS and KS 1758**

The use of KFC FOSS in the floriculture industry, along with the creation of KS 1758 for the horticulture sector, has fostered a positive perception among value chain actors regarding the role of these tools in promoting a more sustainable industry with clear guidelines and procedures. Interviewees said that the major advantage of the benchmarking between the KS 1758 and the KFC FOSS standards has been the inclusion of small to large producers under one framework, providing tools for those not yet prepared to export while ensuring that



the local market receives quality and safe products. Following are their remarks about the perceived advantages of benchmarking.

### **3.1 Positive Perceptions on the Use of VSSs**

Several respondents said the benchmarking process of the KS 1758 and the KFC FOSS standards has helped to create a positive perception of the use of voluntary sustainability standards in Kenya. One interviewee said VSSs “are one of the good achievements of the floriculture industry in the country and globally” (interview respondent, personal communication, 2023). The public mandatory KS 1758 is considered a more affordable option that acts as a complementary standard and a “stepping stone for local and small producers that desire to export their produce” (interview respondent, personal communication, 2023) and access markets while serving the domestic market. The benchmarking with the KFC FOSS also “gives growers a baseline and serves to prepare small-scale producers to meet international standards with specific environment and social requirements” (interview respondent, personal communication, 2023).

### **3.2 Better Data Collection and Record-Keeping**

The use of voluntary and mandatory standards in the horticulture sector has enhanced data-collection and record-keeping processes, “such as maintaining records on pesticides use, electricity, waste management” (interview respondent, personal communication, 2023), which was required and demanded by the market. One interviewee emphasized that data are “considered one of the most important elements in the sustainability journey” and that the ability to keep records in floriculture production is “beneficial to the industry as a whole” (interview respondent, personal communication, 2023), as it is crucial to demonstrate its efficiency and raise the bar.

### **3.3 Enhanced Transparency of Processes**

Benchmarking between KS 1758 and the KFC FOSS allowed value chain actors to “compare operation processes in a transparent way and delve into more specific elements of sustainability performance in the sector” (interview respondent, personal communication, 2023). The benchmarking has also allowed for better readability of the schemes and improved cost efficiency, so producers are ready to access markets. It has helped to “rationalize the landscape,” as all actors involved in the process know exactly which aspects are covered, which are not, and what they need to do to comply with the requirements.

### **3.4 Local and Regional Markets Are More Important**

Some responses indicate that the benchmarking has helped expand sustainability practices in the industry, not only to comply with international markets but also to cover local and regional ones. This awareness has underscored the importance of sustainability standards in ensuring that Kenyan consumers have access to adequate, accessible, affordable, safe, and nutritious horticulture products. This makes sense, as “only 5% of total horticulture produce is exported, while the rest, mainly produced by small-scale farmers, remains in the country” (interview respondent, personal communication, 2023). Given the initial commitment over a voluntary standard in the floriculture sector intended for export markets, local retailers of other horticultural goods began to demand that products intended for the domestic market



meet minimum requirements. As an example, large suppliers and supermarkets such as Carrefour and Naivas were trained and registered under KS-1758 and are requiring that all horticultural produce sold in their stores follow the minimum quality and safety requirements, particularly the KS 1758 standard (Bitange, 2023).

### **3.5 Better Productivity**

According to interviewees' responses, adopting voluntary and mandatory standards in the horticultural sector in Kenya has translated to resilience and confidence in a competitive and saturated global business. "The benchmarking has not only reduced cost and fatigue of compliance and operations but also wastage occasioned by interception of the marketplace came down" (interview respondent, personal communication, 2023). "KFC's investments into self-regulation and the adoption of VSSs has borne fruit for the Kenya flower industry. It has neatly aligned production, handling, and storage [of flowers] to the markets" (interview respondent, personal communication, 2023).

Harmonization has also upgraded farm-level operations, such as technical and administrative skills in all the areas required for compliance on all fronts. Partnerships between industry actors and the government to deliver the necessary training, including the sensitive area of workers' rights, have become part of the industry's policy.

### **3.6 Increased Value Chain Efficiency**

The harmonization of standards in the horticulture sector has brought all value chain actors, including exporters and handlers, under a single standard practice, which is the basis on which export permits are issued. "This eliminates the possibility of any rogue practice and lack of proper documentation that, in the past, have resulted in costly interceptions at market entry points in the European Union" (interview respondent, personal communication, 2023). It has also reduced the administrative burden for producers and exporters, increased chain efficiency, and reduced the costs of transactions between different actors in the chain, thereby improving overall chain management.

### **3.7 Improved Worker Welfare**

Interviewees signalled the efforts of the KFC's members toward increased social sustainability in the sector through significant investment in community development initiatives to enhance the welfare of both employees and local communities. The KFC FOSS also has criteria looking to ensure fair wages for workers, promoting gender equality in the workplace, and supporting initiatives such as constructing educational and health care facilities, as well as implementing projects for clean water and hygiene (Ufadhili Trust, 2022). All these efforts underscore a collective dedication to fostering inclusive growth and prosperity for all stakeholders involved in the country's flower subsector and the horticultural industry in general.



## 4. Perceived Challenges and Limiting Factors Related to the Enforcement and Compliance Of Standards

Some challenges remain in the use of both voluntary private and public mandatory standards in the horticultural sector in Kenya. These relate to expanding coverage and reaching out to small producers who are still not certified, especially those selling flowers and other horticultural products through informal channels. Below is a summary of the main challenges on enforcement and compliance shared by interviewees.



IISD meeting in Nairobi with flower sector actors, June 2023.

### 4.1 Enforcement and Compliance

Even though 80% of flower producers in Kenya are certified with the KFC FOSS standard, 20% are not. One of the challenges of enforcing KS 1758 is ensuring that producers who are not covered by private standards comply with the minimum requirements of the public standard. Marketing of horticultural products in domestic markets happens largely through informal channels, so consolidators and vendors operating in informal markets are still largely non-compliant. Some interviewees reported that “there is a need for more efforts on record-keeping and clarification of enforcement mechanisms for compliance under the KS 1758” (interview respondent, personal communication, 2023).

Interviewees also reported that some products still manage to cross borders without being certified. This poses a risk for the industry and consumers, as these horticulture products do not meet the quality and safety requirements.

More efforts are required by the government, specifically the AFA, to make sure that producers who are not under the realm of the KFC or other VSSs—usually small-scale farmers—comply with the minimum requirements established by the mandatory public standard. One of the challenges is “how to implement the same standard in a smallholder environment—this must be achieved.” However, more work is needed as the “government feels that the industry is self-regulated, [and therefore] they do not see the need to intervene” (interview respondent, personal communication, 2023).

### 4.2 Concerns About Quality and Safety Standards in the Domestic Market

Interviewees said more commitment is needed to ensure the quality and safety of horticultural products, such as fruits and vegetables—but also flowers—sold in the domestic market, as they perceive that the focus is mostly on export crops. “It is important to provide the same standards to the people in your country” (interview respondent, personal communication, 2023); “Kenyans should have access to quality and safe products” (interview respondent, personal communication, 2023).



Other challenges and risks for the horticulture industry were identified as maintaining product quality and the capability for growers and exporters to produce responsibly, as well as supporting producers and exporters who bear the higher cost of doing business, particularly freight costs, which have more than doubled since the pandemic (Fresh Produce, Middle East and Africa, 2024).

## Lessons Learned in the KS 1758 and KFC FOSS Benchmarking

The Kenyan flower case shows that benchmarking public and private standards is possible and beneficial to the parties when the government creates an enabling environment and the right conditions. In the case of the KS 1758 and KFC FOSS standards, benchmarking was possible thanks to a combination of factors, including

- growing market demand, especially for products compliant with minimum safety and quality requirements;
- private sector leadership—the existence of competent and influential industry organizations representing the interests of most actors in the value chain and a commitment to self-regulation; and
- the government’s recognition that sustainability standards can be used as tools to inform the development of key industries, coupled with its willingness to collaborate with other industry actors, such as the private sector and civil society.

In this case, the benchmarking between a mandatory standard that targets domestic markets and a voluntary standard mostly used for export markets allows the possibility to include all producers, from small to large. It also enables the development of mechanisms for producers who are not covered by the private standard to start complying with minimum requirements regarding safety and social and environmental issues without excluding them from accessing international markets. The benchmarking has also reduced the costs of compliance—for instance, in audits and paperwork—making the process easier for all value chain actors, from input providers to buyers in international markets.

The long-term existence and enforcement of a code of conduct for the floriculture sector led the Kenyan government to realize the value of aligning a mandatory standard or code of practice created to shift the horticultural sector toward sustainability with a private standard (IISD, personal communications, 2023). This also shows that strong leadership was the basis upon which the Kenyan government, along with other partners and stakeholders, recognized the KFC as the body representing the flower industry in Kenya and abroad. Benchmarking, on the other hand, has provided a common language within horticultural subsectors and supply chains while promoting consumer confidence in product safety and quality.

Another vital component was the government’s willingness to collaborate with private sector actors and civil society and to invest resources to develop the administrative, technical, and scientific capacities of producers, operators, exporters, and regulators to comply with emerging requirements—in both local and international markets—by eliminating barriers to trade (i.e., compliance with permitted levels of pesticides). The economic importance



Flower samples ready to export to Dubai in Naivasha, Kenya, June 2023.

of the horticulture sector, especially the floriculture subsector, was a key factor that motivated the collaboration between the KFC and the government. In other words, the Kenyan government has recognized that using private voluntary standards has been useful for creating an enabling environment for effective monitoring and certification of practices—and it has taken advantage of their existence to develop a mandatory standard.

Despite the challenges related to the enforcement of KS 1758 and concerns about maintaining the quality and safety of horticultural products for the domestic and regional markets, the benchmarking between the KS 1758 and the KFC FOSS standards

has instituted a system that largely incorporates good agricultural practices across the board, as well as environmental and social considerations. This is a novelty in the development of public standards in the country: making sure that horticulture products exported and/or entering the domestic markets are safe and reliable.

Also, this unique case shows that alignment between mandatory standards and private voluntary standards has been key for the development of the flower and ornamental industry in Kenya. It has also benefited producers and other operators, as compliance with KFC FOSS ensures that they are following the minimum requirements established by the Kenyan legislation. In addition, compliance with the KFC equates to compliance with international standards, such as GLOBALG.A.P., through the benchmarking of both standard-setting organizations conducted. This equivalence grants producers access to domestic, regional, and international markets. As an example, the KFC has organized and participated in international events and flower fairs in key markets such as Belgium, Holland, Italy, Japan, Korea, Russia, Sweden, and others, opening market access opportunities for producers and exporters. As a result, more recently, the Axfood Group, the leading wholesaler in the service trade in Sweden, has confirmed acceptance of the KFC FOSS as a recognized standard for flowers sourced from Kenya (Floral Daily, 2024b).

## Going Forward: How can this experience translate into positive practices and the development of other key sectors in the country and the region, such as grains?

The case of Kenya's horticulture sector provides an interesting example of the opportunities and challenges related to benchmarking public mandatory and private voluntary standards for the benefit of a critical national industry. This example could be useful for other sectors aiming for international or regional recognition, such as Kenya's grain sector. This sector has faced reputational challenges due to its failure to ensure the quality and safety of products,



leading to huge quantities of post-harvest losses, compromising food security, and creating high risks for public health as poisonous substances, such as aflatoxins, often contaminate produce such as maize.

While the market dynamics of the horticulture and grains sectors are different, creating a code of practice that leads to the creation of a voluntary or mandatory standard for grain farmers could potentially identify and address the hotspots in the value chain, provide commonality across perishable products, and generate trust among end consumers. It could also have “spillover” effects on the local economy, as innovation and quality could be achieved, leading to new forms of competitive advantages that may provide a basis for the more sustainable production, consumption, and intraregional trade of grains.

The Kenyan government already has the capacity and experience to introduce such codes in other critical sectors and would be able to support the process and develop the necessary mechanisms to make it work. Additionally, an organized private sector could be instrumental in effectively mobilizing the relevant stakeholders needed to initiate the process. The East African Grain Council— which was registered in 2006 and has active members in Kenya, Uganda, Tanzania, Burundi, Rwanda, and South Sudan—would be well positioned to take a leading role in this approach, as it supports structured grain trade in the region.

The flower case has shown that “when products and processes become more standardized, transparency increases, and trade becomes more predictable and easier to control, thus reducing transaction costs” (van Dijk & Trienekens, 2012) while also promoting better practices. This approach could give organizations such as the East African Grain Council an opportunity to take a leadership role and create a code of conduct that has the potential to become a public, mandatory standard in the region. This could be done by leveraging the experiences of countries such as Kenya, which has already undergone similar processes in the horticulture sector, and possibly expanding the model to other East African countries.



### **Box 1. The institutional landscape of the Kenyan flower sector: Main actors**

- Different ministries in Kenya are responsible for the development of the horticulture sector, including the Ministries of Water and Irrigation, Health, Environment, and Natural Resources, as well as other local government, cooperative development and marketing, trade, and regional development authorities.
- The Horticultural Crops Directorate, established in 1967, is mandated to facilitate the development, promotion, coordination, and regulation of the horticultural subsector in Kenya. It is also responsible for issuing export certificates to cut-flower exporters.
- The Horticultural Crops Development Authority is one of the major organizations responsible for facilitating, developing, promoting, and regulating horticulture techniques in Kenya.
- The Kenya Plant Health Inspectorate Services is responsible for issuing phytosanitary certificates and ensuring that cut-flower producers meet the stringent maximum residue levels required for export access to the EU, which requires mandatory pesticide inspections. It is the office in charge of inspection and approval of exports of planting materials.
- In the private sector, the Kenya Horticultural Council launched in 2017 to support the development of the sector. KHC is a business membership organization that was formed by Kenya's leading horticultural trade associations: the KFC and Fresh Produce Exporters Association of Kenya. Its mandate is to lead the country's horticulture industry growth and development through high-level lobbying and advocacy services for the industry while facilitating and maintaining access to existing and emerging markets (Hortidaily, 2017).





## References

- Bitange, N. (31 May 2023). More trainers of KS1758 – Horticultural Code of Practice to reach more farmers in Kenya. *PlantwisePlus Blog*. <https://blog.plantwise.org/2023/05/31/more-trainers-of-ks1758-horticultural-code-of-practice-to-reach-more-farmers-in-kenya/>
- Central Bank of Kenya. (2021, January). *Monetary Policy Committee flower farms survey*. [https://www.centralbank.go.ke/uploads/market\\_perception\\_surveys/848246841\\_MPC%20Survey%20of%20Flower%20Farms,%20January%202021.pdf](https://www.centralbank.go.ke/uploads/market_perception_surveys/848246841_MPC%20Survey%20of%20Flower%20Farms,%20January%202021.pdf)
- Collinson, C. (2001). *The business costs of ethical supply chain management: Kenyan flower industry case study* (NRI report No. 2607). Natural Resources and Ethical Trade Programme, Natural Resources Institute. <http://projects.nri.org/nret/2607.pdf>
- Embassy of the Republic of Kenya in Japan. (n.d.). *The flower industry in Kenya*. <https://www.kenyarep-jp.com/en/business/flower/>
- FloralDaily. (2023). *Kenya Flower Council presents annual report*. <https://www.floraldaily.com/article/9549495/kenya-flower-council-presents-annual-report/>
- FloralDaily. (2024a). *Kenya Flower Council standard re-benchmarked as equivalent scheme*. <https://www.floraldaily.com/article/9012899/kenya-flower-council-standard-re-benchmarked-as-equivalent-scheme/>
- FloralDaily. (2024b). *Kenya Flower Council FOSS certification now among Dagab's preferred standards*. <https://www.floraldaily.com/article/9602808/kenya-flower-council-foss-certification-now-among-dagab-s-preferred-standards/>
- Floriculture Sustainability Initiative. (2024). *FSI basket of standards*. <https://www.fsi2025.com/basket/>
- Florinews. (2017). *A passion for flowers*. [http://florinews.com/images/past\\_issues/July\\_August\\_2017.pdf](http://florinews.com/images/past_issues/July_August_2017.pdf)
- Fresh Produce Exporters Association of Kenya. (2018). *Newsletter: 2nd quarter activities 2018 (April–June 2018)*. <https://fpeak.org/wp-content/uploads/2019/06/FPEAK-Newsletter-001.pdf>
- Fresh Produce, Middle East and Africa. (2024, April 12). *Kenyan flower industry shifts from air to sea freight for sustainability and cost-effectiveness*. <https://www.freshproducemea.com/kenyan-flower-industry-shifts-from-air-to-sea-freight-for-sustainability-and-cost-effectiveness/>
- Herbling, D. (2020). *Lockdown easing in Europe revives Kenyan flower industry*. BNN Bloomberg. <https://www.bnnbloomberg.ca/lockdown-easing-in-europe-revives-kenyan-flower-industry-1.1439725>
- Horticultural Crops. (2021). *Statistics*. <https://horticulture.agricultureauthority.go.ke/index.php/statistics/statistics>
- Hortidaily. (2017, August 23). *Kenya Horticultural Council officially launched*. <https://www.hortidaily.com/article/6036830/kenya-horticultural-council-officially-launched/>



- Kenya Flower Council. (n.d.). *Certified members*. <https://kenyaflowercouncil.org/index.php/certified-members>
- Kenya Flower Council. (2022). *Kenya Flower Council Certification Scheme: Quality system regulations: E1.0. Standards setting and review procedure*. <https://kenyaflowercouncil.org/images/Standards.pdf>
- Kenya Flower Council. (2023). *KFC GOLD*. <https://www.kenyaflowercouncil.org/index.php/our-story/our-standard/f-o-s-s/kfc-gold>
- KEPHIS. (2024). *KEPHIS milestones*. <https://www.kephis.go.ke/kephis-milestones>
- Langmead, A. (2023, April 13). *The history of the Kenya flower industry – Part 1*. The Flower Hub. <https://theflowerhub.net/the-history-of-the-kenyan-flower-industry-part-1/>
- Machuki, H. (2023). *Hosea Machuki: Kenya can double its horticulture export earnings*. <https://africabusinesscommunities.com/features/column-hosea-machuki-kenya-can-double-its-horticulture-export-earnings/>
- Mordor Intelligence. (2023). *Kenya floriculture market*. <https://www.mordorintelligence.com/industry-reports/kenya-floriculture-market>
- Mwangi, N. (November 2021). *The power to flourish: Unearthing the roots of Kenyan flower producers' market access strategies*. [PhD dissertation]. University of Cambridge. <https://core.ac.uk/download/pdf/187093472.pdf>
- Pasquali, G., Barrientos, S., & Opondo, M. (2021, November). *Polycentric governance of global and domestic horticulture value chains: Shifting standards in Kenyan fresh fruit and vegetables* (GDI Working Paper 2021-060). The University of Manchester Global Development Institute. <https://static.pmg.org.za/220325gdi-working-paper- 1.pdf>
- ResourceTrade.Earth. (2023). Total Kenyan exports of Cut flowers & flower buds for bouquets, etc., fresh (data from 2022). Chatham House. <https://resourcetrade.earth/?year=2022&exporter=404&category=429&units=weight&autozoom=1>
- Society of Crop Agribusiness Advisors of Kenya. (2018). *Quick guide KS 1758-2:2016 Horticulture industry – Code of Practice. Part 2: Fruits and vegetables*. [https://a.storyblok.com/f/191310/1bfa558c92/ks1758\\_standards\\_quick\\_guide.pdf](https://a.storyblok.com/f/191310/1bfa558c92/ks1758_standards_quick_guide.pdf)
- The Crops Act No. 16 of 2013, Legal Notice No. 118. (8 July 2020). Kenya Gazette Supplement. [https://ks1758.afa.go.ke/media/resources/Published\\_hort\\_Regulations\\_1-1\\_1.pdf](https://ks1758.afa.go.ke/media/resources/Published_hort_Regulations_1-1_1.pdf)
- Ufadhili Trust. (2022). *Investing in women workers is a win for the Kenya's floriculture sector*. <https://www.womenwin.org/wp-content/uploads/2022/03/Investing-in-Women.pdf>
- van Dijk, M. P. & Trienekens, J. (2012). *Global value chains: Linking local producers from developing countries to international markets*. Amsterdam University Press. [https://m.moam.info/global-value-chains-oopen\\_59b514631723ddd9c64423cb.html](https://m.moam.info/global-value-chains-oopen_59b514631723ddd9c64423cb.html)



## Acknowledgements

The authors are deeply grateful to the individuals listed below for their willingness to share their experience with us.

<b>Name</b>	<b>Last name</b>	<b>Role</b>	<b>Organization</b>	<b>Type of organization</b>
Richard	Fox	Former chair	Kenya Flower Council	Standard-setting body
Martin	Kedii	Inspector	Kenya Bureau of Standards	Regulator
Esther	Kimani	Pest Control Board	Kenya Plant Health Inspectorate	Regulator
Sylvie	Mamias	CEO	Union Fleurs	Association
Gerald	Masila	Executive Director	Eastern Africa Grain Council	Association
Patrick	Mbugua	General manager	Wildfire Flowers	Farmer/ exporter
Steve	Musyoka	Former CEO	Oserian Flowers	Farmer/ exporter
Eunice	Muthoni	Researcher	Ethical Trade Standards – worker welfare	Researcher/ writer
Jeroen	Oudheusden	Executive	Flower Sustainability Initiative	Association
Catherine	Riungu	Journalist	The Horticulture Magazine	Researcher/ writer
Benjamin	Tito	CEO	Horticulture Crop Authority	Regulator
Ruth	Thao	Owner	Phinna Flowers	Farmer/ exporter
Clement	Tulezi	CEO	Kenya Flower Council	Standard-setting body

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