

FLORICULTURE IN EAST AFRICA

1. INTRODUCTION

- 1.1 The current international floriculture industry is flourishing with steady growth rates being achieved in the past few decades. The producing countries are clustered around the temperate Equatorial regions. Most of the trade flows from south to north with Europe and North America comprising the largest consumer markets.
- 1.2 This report aims to provide a comprehensive and concise analysis on the floriculture industry in East Africa and more specifically, Kenya, Tanzania and Ethiopia. When considering the floriculture industry in East Africa, Kenya is the country in the leading position in terms of flower cultivation and export development, and hence will be the focal country of this report.



Figure 1 - Map showing flower cultivating countries in East Africa.

2. GEOGRAPHY

- 2.1 East Africa houses the ideal conditions for the cultivation and production of flowers for several reasons:
 - 2.1.1 There is a sunny climate, producing high-quality blooms all year round with minimal need to run costly greenhouses.
 - 2.1.2 There are established transport links to Europe.
 - 2.1.3 There is easy access to cheap labour.

2.2 Kenya.

2.2.1 In Kenya, flowers are grown in various geographical locations. Naivasha however, is the biggest growing region in the country, accounting for 44% of national production. Naivasha also has suitable transport links to the capital city Nairobi, situated approximately 90km south-east. Located near a freshwater lake and with particularly fertile ground, Naivasha provides good conditions for producing medium-sized roses commonly found in the floral section on EU supermarkets. Other production areas in Kenya are Thika, Limuru, Nanyuki, Mt. Kenya and Eldoret.

2.3 Tanzania.

2.3.1 Flower production in Tanzania takes place in the north of the country around the town of Arusha. Flower farms are located there primarily as it allows them to be close to the Kenyan border, and by extension airport links which most Tanzanian floriculture businesses make use of to export their flowers to the EU market.

2.4 Ethiopia

2.4.1 Flower production in Ethiopia is focused in 2 areas: Bahir Dar, which is positioned on the southern edge of Lake Tana, 450km north-west of the capital city Addis Ababa. and in the Oromiya region, south of Addis Ababa, which at an altitude of 2000 meters above sea level makes an ideal environment for floriculture.

3. MARKET OVERVIEW

3.1 Global floriculture exports have increased by over 80% since 2005 reaching \$20.6 billion in 2017. Of this increase in export revenue, Africa is the region experiencing the most growth and is anticipated to continue to do so with increases of 5% every year for the next 5 years. This is mainly attributed to:

3.1.1 Policy from the government giving tax breaks.

3.1.2 Duty-free imports of machinery.

3.1.3 Easy access to bank loans.

3.1.4 Access to a large and productive workforce.

3.1.5 A climate suited to flower production.

3.1.6 Fertile ground.

3.2 Kenya.

3.2.1 The Kenyan floriculture industry was established by the Dutch in the 1990s and is split into 3 separate segments: breeding (developing new varieties), propagation (multiplying by any process of natural reproduction from the parent stock) and the actual growing of plants.

3.2.2 Kenya's flower sector has grown massively since 2000 and is dominated by the production of roses (75%) but also produces carnations, statice, alstroemeria, liliium and a variety of summer flowers. This all amounts to over 3,400 hectares of flowers (in greenhouses and outdoors) and 159,961 tonnes of flowers exported in 2017. The table below represents the scale of growth seen in the Kenya's flower sector since 2010.

Flower Export Volumes (Metric tons)

| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 120,221 | 121,891 | 123,511 | 124,858 | 136,601 | 122,800 | 133,658 | 159,961 |

Flower Export Values (Kshs Billions)

| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 35.50 | 44.51 | 42.87 | 46.33 | 54.60 | 62.92 | 70.80 | 82.25 |

Figure 2 - Table showing flower export volumes (metric tonnes) and flower export values (Kshs billions) from 2010 to 2017.

- 3.2.3 Kenya provides approximately 38% of EU flower imports with the main markets located in the Netherlands, United Kingdom, Germany, France and Switzerland.
 - 3.2.4 Currently the Kenyan flower industry is vulnerable as it exports almost exclusively to a single economic bloc, the EU. Evidence of this vulnerability was witnessed in the wake of the 'credit crunch' of 2008 when the EU imposed tariffs on Kenya's cut flowers, forcing Kenyan companies to absorb US\$3.4 million in costs over the 3-month period that restrictions applied. In response to this dependence, Kenya has attempted to diversify their export portfolio by opening bilateral trade channels with the Chinese market. This market is beginning to gain momentum with reported sales increasing from 40 tonnes in 2016 to 320 tonnes in 2017.
 - 3.2.5 It is estimated that in Kenya, the floriculture industry directly provides the livelihood for over 500,000 people as well as providing a leading source of foreign exchange, according to the Ministry of Agriculture.
- 3.3 Tanzania.
- 3.3.1 Since 2000, there has been a surge in flower exports from Tanzania with roses and chrysanthemum as the highest grossing crops. Between 2000 and 2007, chrysanthemum cultivation increased by 239%, while during the same period rose production climbed by 658%. This brought Tanzania's total exports in the flower industry to US\$208 million. This growth was mainly due to direct foreign investment from the Netherlands, alongside the government assisting with tax exemptions for a 5-year period from 1999, and the provision of cheap land and labour. Investments have mainly been channelled into building greenhouses, completing cuttings and seed production.
 - 3.3.2 The Tanzanian Horticultural Association (TAHA) was founded in 2004 and helped to improve the air and road networks for flower exports in some focal areas, further boosting Tanzania's export potential.
 - 3.3.3 This trajectory was halted in 2008 however, due to a combination of the government withdrawing support for the sector and the ramifications of the global 'credit crunch'. By 2009, prices had dropped by 30-50% and the industry has only begun to see profits again in 2014.
 - 3.3.4 Major factors which now continue to inhibit further growth of the Tanzanian floriculture industry are poor and inefficient air transports, lack of specific government legislation incentivising flower farms and a tendency to focus on non-traditional farm output instead of flowers.
- 3.4 Ethiopia.
- 3.4.1 Ethiopia is positioned as the second largest flower exporter in Africa, following Kenya, with over 2,300 hectares of flowers and exports valued at US\$324 million in 2016. Considered the 'rising star' in the floriculture industry, this is attributed to Ethiopia extensively addressing:
 - 3.4.1.1 The cost of production.

3.4.1.2 Compliance bottlenecks and taxes.

3.4.1.3 Duty free access to chemicals and pesticides.

3.4.2 Due to these measures and the ease of access to their market they provide, large rose producers such as Sher Agencies have relocated north from Kenya into Ethiopia.

3.4.3 The Ethiopian market is like Kenya's in that it relies heavily on exports to the EU. In response to this, Ethiopia has begun diversifying its production to virgin markets in Asia, the US and even other African nations. Exports to Nigeria, Sudan and Oman have been profitable since 2014.

3.4.4 The Ethiopian floriculture sector was also damaged by the 2008 economic crisis with flower farms earning a combined US\$140 million. less than half of what was projected for the year. This has recovered substantially in the past few years however, with Addis Ababa aiming to lift horticultural revenues by 51% in 2018, as compared to the year before.

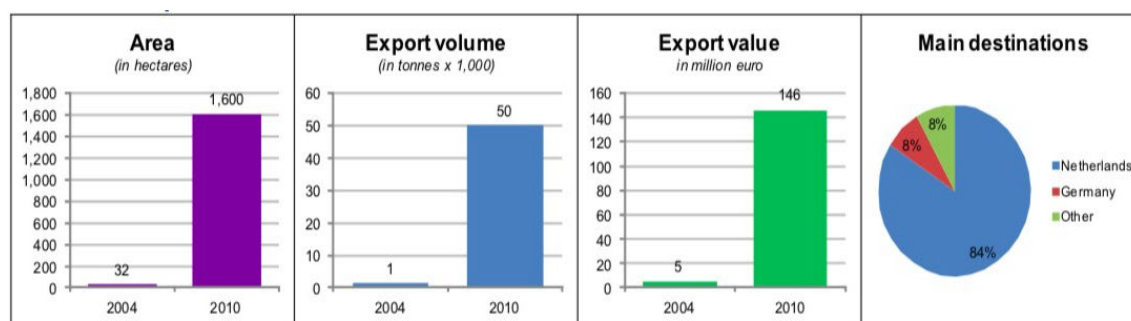


Figure 3 - Graphs showing area, export volume, export value and destination of Ethiopian export of flowers in 2010. Source © [www. http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat).

4. FACTORS AFFECTING FLORICULTURE DEVELOPMENT

4.1 This report identifies 10 key elements that have a direct impact on the East African floriculture industry. These can be separated into internal and external factors, the former being occurrences determined by entrepreneurs, governments and sector organisations, the latter being fluctuations which affect competitiveness regardless of the actions of institutions related to the sector.

4.2 Internal factors affecting the floriculture industry include:

4.2.1 Labour costs and quality of workforce.

4.2.2 Energy and transport costs.

4.2.3 Government regulation and policy.

4.2.4 Established infrastructure.

4.2.5 Research investment.

4.3 External factors affecting the floriculture industry:

4.3.1 Currency fluctuations.

4.3.2 Foreign investment.

4.3.3 Economic situation in target markets.

4.3.4 Climate.

4.3.5 Oil prices.

5. COMPETITIVE LANDSCAPE

5.1 There is an abundance of logistics and transport companies in Africa. This report has included the largest competitors in each East African country.

5.1.1 Kenya.

5.1.1.1 Siginon Group - <https://www.siginon.com>

5.1.1.2 Roy Trabsmotors - <http://www.roy.co.ke>

5.1.1.3 Buzeki Enterprises - <http://www.buzeki.co.ke>

5.1.1.4 Kenfreight - <https://kenfreightgroup.com>

5.1.1.5 P.N. Mashru - <http://pnmashru.com>

5.1.1.6 Mitchell Cotts - <http://mitchellcotts.co.ke>

5.1.1.7 Rongai Transport & Workshop - <http://www.rongaiws.com>

5.1.2 Tanzania.

5.1.2.1 Bolloré Transport & Logistics - <https://www.bolloré-transport-logistics.com/en.html>

5.1.2.2 Bravo Logistics - <https://bravo.co.tz>

5.1.2.3 Integrity Logistics - <http://www.integritylogistics.com>

5.1.2.4 Cargo Tanzania Ltd. - <http://www.cargotanzania.com>

5.1.3 Ethiopia.

5.1.3.1 Steder Group - <https://www.stedergroup.com>

5.1.3.2 Move One Logistics - <https://www.moveoneinc.com/logistics-company/>

5.1.3.3 Give Logistics & Shipping Company - <https://graylaw.co.uk/logistics/>

5.1.3.4 CEVA Logistics- <https://www.cevalogistics.com>

6. FLOWER TRANSPORTATION ROUTES AND COUNTRY INFRASTRUCTURE

6.1 As the East African floriculture industry increases, by extension so does the strain on the existing supply chain. This is compounded furthermore by the perishable quality of the product. When cut, packaged and transported with optimal efficiency and whilst also maintaining low temperatures throughout the process, flowers can last up to 14 days.

6.2 The most common defects sustained during the floriculture supply chain are bent stems, uneven openings or fungal infection. Each will affect sale price, which can be reduced by up to 50% at flower auctions.

6.3 Temperature is the hardest factor to control especially during air freight and given the hot equatorial climate of East Africa. The so called 'cold-chain' is initially the responsibility of the flower producer whereby the following precautions need to be taken throughout the process:

6.3.1 Cutting flowers early in the morning when temperatures are low.

6.3.2 Packaging the product in a 'cool room'.

- 6.3.3 Making sure not to pack flowers too tightly to reduce transport costs but also inadvertently insulating the product.
 - 6.3.4 Making sure flowers spend the minimum time on the runway so as not to reach high temperatures.
 - 6.3.5 Using 'cool containers' to improve temperature regulation.
 - 6.3.6 Attaching a cooling pipe to the aircraft upon arrival in the destination.
- 6.4 An alternative to transporting flowers via air routes is to use shipping facilities which currently transport over 90% of flower exports globally. This route provides a guarantee that ocean reefer containers can keep roses suspended at 0.6 degrees Celsius.
- 6.5 Shipping flowers from East Africa to Europe can take from 28 to 30 days however, when the product is a near freezing temperature the goods arrive in "as good as or better, condition than air freight" (Tilaye Bekele of the Ethiopian Horticulture Producer Exporters Association, 2016).
- 6.6 Shipping flowers from East African nations to target European markets averages at US\$1.2 per kg versus the US\$2 per kg for air cargo. Flower producers need to find an equilibrium of balancing speed with freshness and cost with quality.
- 6.7 Below are *figures 4 and 5*, providing overall information on the transport and logistics in East Africa with specific focus on the largest market, Kenya.

| Fabric and Accessories | | | | |
|---------------------------------------|------------------|-------------|----------------|------------------|
| From | To | Mode | Transit | Frequency |
| Hong Kong/China | Mombasa | Sea | 19-26 days | Weekly |
| | Nairobi | Air | 1-3 days | Daily |
| Pakistan/India | Mombasa | Sea | 12-16 days | Weekly |
| | Nairobi | Air | 1-2 days | Daily |
| South Korea | Mombasa | Sea | 19-21 days | Weekly |
| | Nairobi | Air | 3-4 days | Daily |
| Sri Lanka/ India | Mombasa | Sea | 9-12 days | Weekly |
| | Nairobi | Air | 2-3 days | Daily |
| U.A.E. | Mombasa | Sea | 5-14 days | Weekly |
| | Nairobi | Air | 1-2 days | Daily |
| South Africa | Mombasa | Sea | 4-8 days | Weekly |
| | Nairobi | Air | 1-2 days | Daily |
| Finished Goods | | | | |
| From | To | Mode | Transit | Frequency |
| Nairobi | Mombasa | Road | 2 days | Daily |
| Mombasa | East Coast , USA | Sea | 25-29 days | Weekly |
| Mombasa | West Coast, USA | Sea | 35-38 days | Weekly |
| Nairobi | East Coast, USA | Air | 2-3 days | Daily |
| Nairobi | West Coast, USA | Air | 3-4 days | Daily |
| Provided by United Aryan, EPZ company | | | | |

Figure 4 - Table showing logistics and time estimates for import and export in Kenya. Source © <https://worldbank/sitesource.com>.



Figure 5 - Map showing the major transport corridors in East Africa. Source © <http://nathaninc.com>

6.8 Additionally, the following references provide a substantial amount of information on transport and logistics in East Africa:

- 6.8.1 *Kenya: Issues in Trade Logistics*
http://siteresources.worldbank.org/INTTLF/Resources/Kenya_Final_Report_Jul05.pdf
- 6.8.2 *East Africa Air Transport Survey*
http://siteresources.worldbank.org/INTAIRTRANSPORT/Resources/514573-1117230543314/050617-East_Africa_Air_Transport_Survey_Revision_2.pdf
- 6.8.3 *An Analysis of Cross-Border Transport Systems in East Africa*
http://open_jicareport.jica.go.jp/pdf/11936689_02.pdf
- 6.8.4 *Kenya: preferred entry point to East Africa*
<https://www.pwc.com/gx/en/transportation-logistics/publications/africa-infrastructure-investment/assets/kenya.pdf>
- 6.8.5 *The Kenyan-Dutch Sea Freight Supply Chain for Roses*
<http://edepot.wur.nl/313836>

6.9 The radar graphs in Figure 6 below represent the international scores allocated to countries by the World Bank based on their logistics performance index (LPI). This gives a good indication as to the ease of conducting logistical and transport operations with the country. The LPI is based on 6 factors:

- 6.9.1 Efficiency of the clearing process by border control agencies including customs.

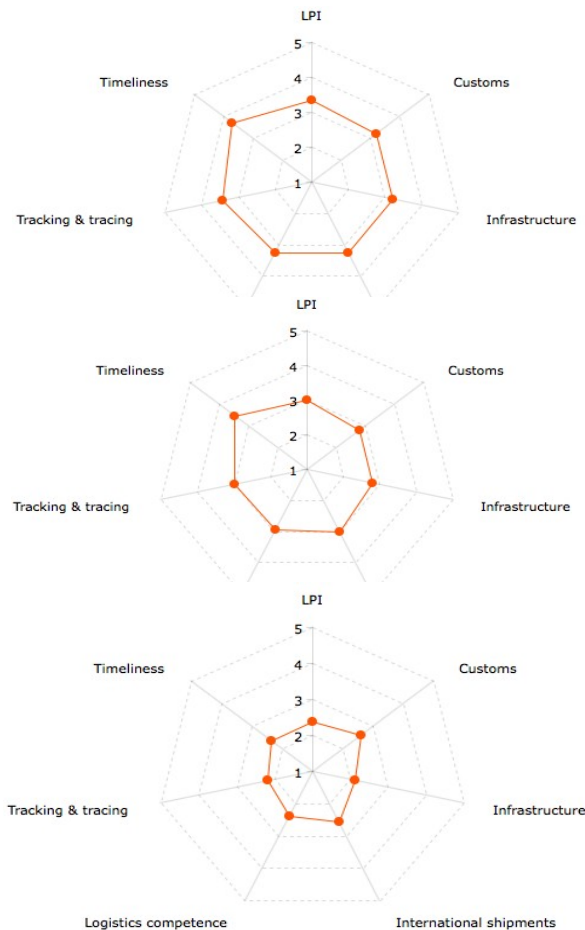


Figure 4 - LPI Scorecard from top to bottom: Kenya, Tanzania, Ethiopia. Source © <https://lpi.worldbank.org/>

- 6.9.2 Quality of trade and transport related infrastructure.
- 6.9.3 Ease of arranging competitively priced shipping.
- 6.9.4 Competence and quality of logistics services.
- 6.9.5 Ability to track and trace consignments.
- 6.9.6 Timelines of shipments in reaching destinations within the schedules or expected delivery time.

7. REGULATORY ENVIRONMENT AND TRADE ASSOCIATIONS

7.1 Kenya's most active region for transport is the Northern Corridor, which currently experiences approximately 10 million tonnes of goods via trucking, railroad or pipeline. These logistical and transport dealings in Kenya can be an especially complex process due to the procedural and physical impediments of moving goods across the country combined with an intricate combination of international and regional trade agreements. Below, this report lists the necessary ministries and institutions responsible for facilitating trade in Kenya by various modes of transport.

7.2 Kenya.

7.2.1 Road transport regulation in Kenya is legislated by 2 autonomous ministries:

7.2.1.1 The Ministry of Transport and Communication (MTC).

7.2.1.2 The Ministry of Roads and Public Works (MoRPW).

7.2.2 The Kenya Railway Corporation (KRC), a parastatal created by Kenya Railways Corporation Act, is the sole institution facilitating and managing the transportation of cargo via trains in Kenya.

7.2.3 All freight sent with ships is under the jurisdiction of the Kenya Ports Authority (KPA), which is entrusted with 3 functions:

7.2.3.1 Regulation.

7.2.3.2 Landlord of the infrastructure.

7.2.3.3 Port operation.

7.2.4 Included below are *figures 7 and 8* detailing:

7.2.4.1 The Import Declaration Process in Mombasa.

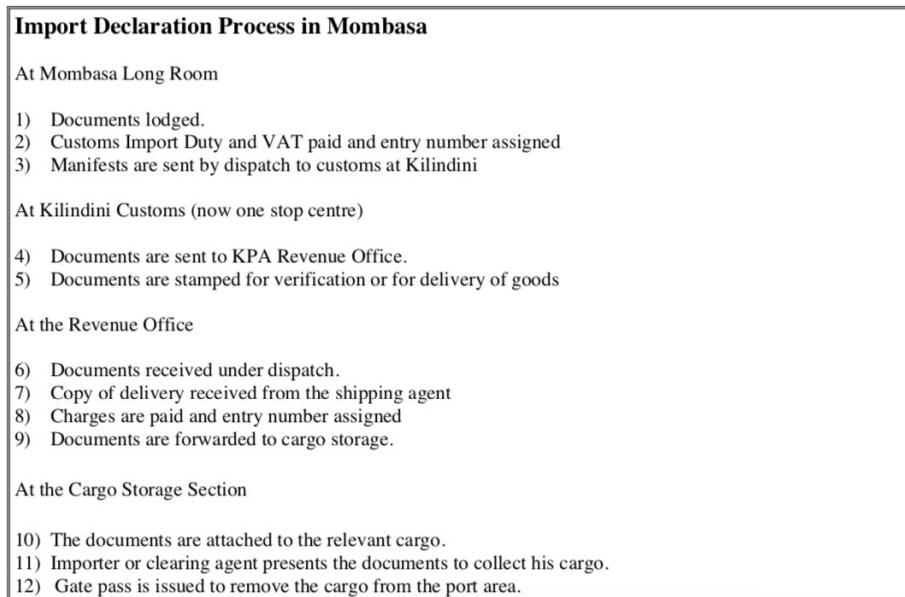


Figure 7 - Import Declaration Process in Mombasa. Source: http://open_jicareport.jica/

7.2.4.2 The Import and Export Documentation for shipping in or out of Kenyan via port Mombasa.

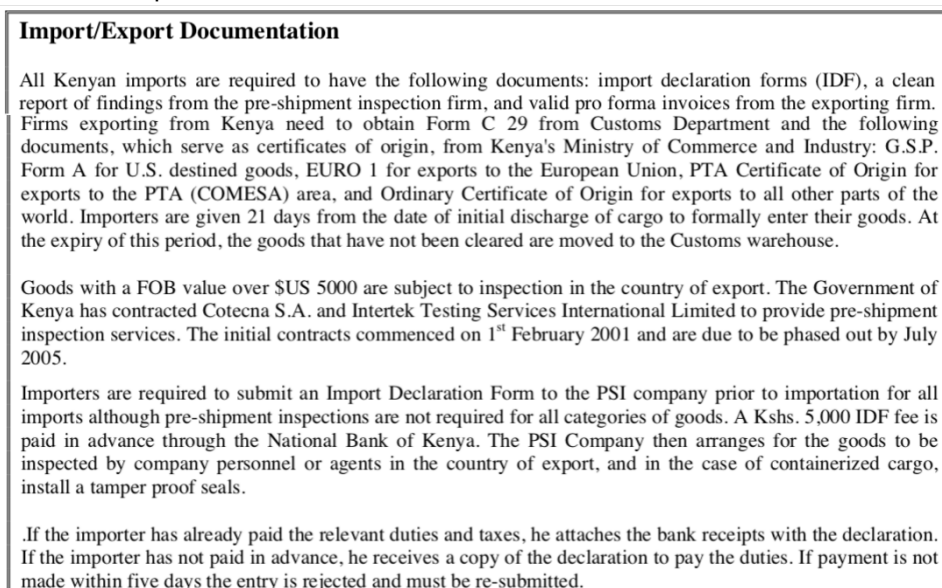


Figure 8 – Kenya Import/Export Documentation. Source: http://open_jicareport.jica/

- 7.2.5 Air transport is by far the most active medium for floriculture exports out of Kenya, responsible for 95% of the product reaching the EU markets. This channel of distribution is regulated by the Kenya Airports Authority (KAA) and Civil Aviation Authority (CAA).
- 7.2.6 The regulation of agricultural products in Kenya is covered by several institutions, of which, the most important are listed below along with their functions.
 - 7.2.6.1 The Ministry of Agriculture and Irrigation.
 - 7.2.6.1.1 Provides overall policy, regulation and operational direction.
 - 7.2.6.2 Kenya Plant and Health Inspectorate Services (KEPHIS).
 - 7.2.6.2.1 The KEPHIS is responsible for regulating plant health issues and seed matters.
 - 7.2.6.3 Horticultural Crops Development Authority (HCDA).
 - 7.2.6.3.1 The HCDA facilitate development, promotion and regulation of Kenya's horticultural industry.
 - 7.2.6.4 The Kenya Bureau of Standards (KBS).
 - 7.2.6.4.1 The KBS promotes standardisation in commerce and industry.
- 7.3 Tanzania.
 - 7.3.1 The Tanzania National Agricultural Policy of 1997 is the current legislation that oversees the cut flower industry in Tanzania. The policy does not explicitly mention ornamental crops, such as roses however, and companies in the Tanzanian floriculture industry consider the policy broad and not applicable to the flower industry.
 - 7.3.2 This continued lack of regulatory organisations for the floriculture industry in Tanzania, which exists for other more traditional crops, has resulted in badly coordinated export strategies and confusion for logistics and transport companies. Due to the time and procedural sensitivity of the supply chain and export of flowers, this confusion often results in flowers of sub-standard quality from Tanzania reaching Dutch auctions. Added expense is compounded by lack of direct trade links between Tanzania and European markets resulting in Tanzanian exporters transporting flowers to Kenya's Jomo Kenyatta International Airport to be freighted to Europe.
- 7.4 Ethiopia.
 - 7.4.1 The Ethiopian Horticulture Development Agency (EHDA) oversees the trading of flowers in and out of Ethiopia with the overall aim of creating a bicameral system to provide faster and more coherent services for Ethiopian horticulture exporters.
 - 7.4.2 For transporters, specifically air travel, which constitutes 90% of the market, Ethiopian Airlines is currently the major company providing air freight export for the floriculture industry however, Emirates, Etihad and KLM are now also operating in a minor capacity.

7.4.3 Please see below a diagram showing the facilitating agents in Ethiopia's floriculture trade.

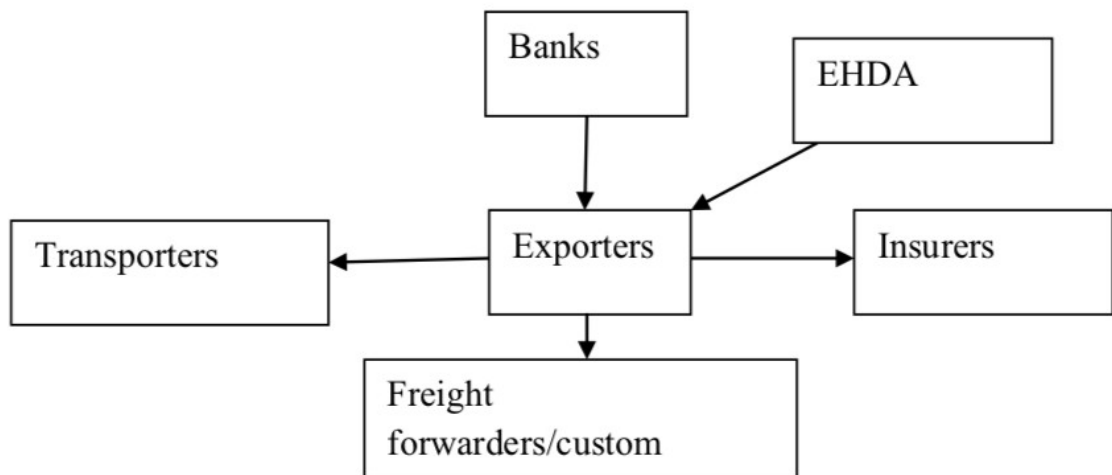


Figure 9 - Facilitating agents in Ethiopia's floriculture trade. Source © <https://flowerweb.org>

7.4.4 Banks must provide the exporter or insurer with a flower export license. To apply for this license, the organisation must provide:

- 7.4.4.1 All requirements under the FXD/24/2004, a document issued for the protection of exports.
- 7.4.4.2 The export application detailing where the product is to be sold.
- 7.4.4.3 The name of the agent delegated to process the request on behalf of the exporter.
- 7.4.4.4 An acceptance letter to the named auction.
- 7.4.4.5 A signed agreement with the intermediary agent.
- 7.4.4.6 Purchase contracts or requisition for the supply of flowers from the buyer.
- 7.4.4.7 A partial shipping reference consistent to the balance remaining under the permit.

7.4.5 More detailed information on the regulatory environment for Ethiopian transport and logistics can be found at <https://www.nbe.gov.et/pdf/Flower%20Export.pdf> and <http://internationalscholarsjournals.org/download.php?id=177339134598294031.pdf&type=application/pdf&op=1>.

7.4.6 *Figure 10* below details what is required of insurers and freight forwarders working with exporters of flowers in Ethiopia, and East Africa more broadly.

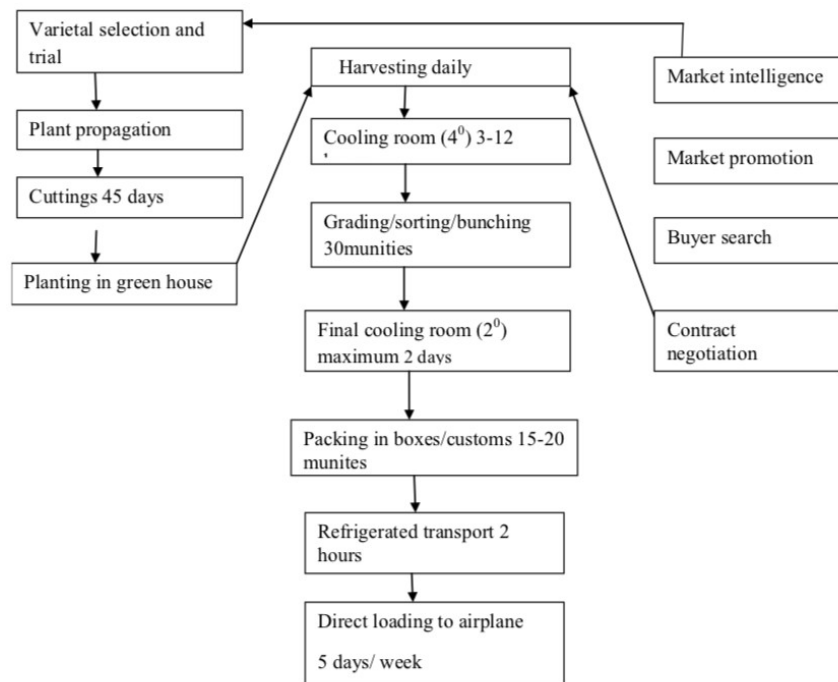


Figure 10 - Flow chart showing a vertically integrated rose supply chain. Source © www.internationaljournalofhorticultrureandfloricultrure.org/

8. LIMITATIONS, RECOMMENDATIONS AND PROJECTIONS

8.1 Kenya.

- 8.1.1 Kenya's flower industry is highly vulnerable to external forces such as fluctuations in currency and oil prices, the domestic climate and the economic state of the target market. Although these factors are not controlled by the flower industry, floriculture companies in Kenya should adopt practices to mitigate their effects, such as diversifying both their product and target market, and implementing Good Agricultural Practices (GAP), for example.
- 8.1.2 The decentralised taxation system in Kenya is chaotic, often resulting in double taxation and wasted time. Fiscal incentives from the government could be implemented to support sectors of industry in their growth to promote high productivity and increased exports.
- 8.1.3 Increases in labour and input costs suggest a need for the flower industry to invest in efficiency improving measures to keep costs down and remain competitive.
- 8.1.4 In 2017, Kenyan floriculture exports totalled US\$690 million, making up 70% of Kenya's entire horticulture industry. The floriculture industry is expected to continue growing, due to market diversification into China, Eastern Europe and Russia.
- 8.1.5 Due to lack of an official quality assuring body, Kenya is implementing the Kenya Flower Council Silver standard, which all exporters must comply too. This push for increased quality is a bid by Kenyan floriculture companies to remain competitive by creating a Kenyan flower brand.
- 8.1.6 Kenya currently hold a 7% global market share of the flower industry and stands as the 4th largest exporter behind the Netherlands, Colombia and Ecuador. Favourable weather conditions and a renewed focus on new markets are forecast to grant Kenya the opportunity to increase this global market share to a predicted 10% by 2022.

8.2 Tanzania.

8.2.1 Tanzania has 4 sub-sectors of its horticulture industry: fruits, vegetables, flowers and spices. Of these, each grew by over 10% in 2017 apart from flowers. There are several factors that have inhibited Tanzania's capacity to expand their floriculture industry, such as:

8.2.1.1 In the establishing years of Tanzania's floriculture industry, flowers were grown in open fields to save on capital investment. This has jeopardised the quality of the product however and left the flowers vulnerable to droughts, as experienced in 2017.

8.2.1.2 Poor infrastructure, such as bad roads and undeveloped airports, means that all flowers are transported to Kenyan airports to be exported resulting in higher transport costs. This effect is compounded by the lack of efficiency in Tanzanian ports.

8.2.1.3 Inadequate investment in the industry causes a scarcity of floriculture experts, a lack of chemicals fundamental for producing quality flowers and a lack of investment in research and development.

8.2.2 The China-Tanzania Industrial Development and Poverty Reduction Strategy meeting took place in 2015, with the purpose of promoting bilateral development. Outcomes are to be achieved by sharing ideas on effective strategies that could be adopted to combat poverty through the development of industry. Many of these opportunities are expected to come from the floriculture industry, due to the increase of China's middle class and an increased tendency to spend more money on luxury items such as flowers.

8.3 Ethiopia.

8.3.1 Ethiopia's floriculture industry has increased substantially with 8% year-on-year growth from 2004 to 2014, making it the second largest African exporter of flowers after Kenya. Export in terms of tonnes has grown from 3 in 2002 to over 50,000 in 2013 and is forecast to continue at a significant rate. This has been matched by employment in the floriculture industry increasing by over 100% from 2002 to 2014.

8.3.2 Ethiopian floriculture is forecast to continue this path of growth due to several factors.

8.3.2.1 The current area of land used for horticulture in Ethiopia is 12,552 hectares. Floriculture only utilises 1,442 hectares (11%) of this land but generates over 80% of foreign horticulture revenue.

8.3.2.2 Macro-economic stability, political incentives and cheap labour constitute a competitive edge for the industry compared to other countries in the region.

8.3.2.3 Ethiopia is also beginning to diversify its target market with direct sales to the Middle East and India.

8.3.3 Ethiopia's predicted growth may be hindered for several reasons however.

8.3.3.1 The Ethiopian *brand* does not have traction in the global flower market as flowers are re-exported from flowers auctions and the brand is lost.

8.3.3.2 There is a lack of floriculture experts and integration of the industry into the local community is lacking.

9. CONCLUSION

9.1 The future of the floriculture industry in East Africa is hard to predict. This is because of its vulnerability to external factors such as, varying weather conditions, instabilities in target markets, and fluctuations in currency and oil prices.

9.2 Kenya.

9.2.1 When considering trends of recent years, Kenya indicates strong potential for the following reasons:

9.2.1.1 Kenya has established infrastructure and transport links for rail and road routes with air routes being especially developed in comparison to neighbouring competitors, with a dedicated terminal at the international airport in Nairobi.

9.2.1.2 Steady year-on-year growth for the industry to now having the 2nd largest market share of flower exports in the world after the Netherlands.

9.2.1.3 There are favourable conditions for future growth with water accessibility and a focus on producing quality flowers.

9.2.2 Points for improvement in Kenya that are currently inhibiting further growth are:

9.2.2.1 The mono-export culture with almost all product being absorbed by the Netherlands. Kenya is beginning to take steps to counter this however, by investing and establishing trade deals with other emerging markets.

9.2.2.2 The decentralised tax system that is confusing and time costly.

9.2.2.3 There are increasing labour and input costs. Kenya is trying to counterbalance this however, by making their production line more efficient.

9.3 Tanzania.

9.3.1 Tanzania was slow to enter the floriculture market and has not yet begun producing to the same standard in terms of quality or quantity as its northern neighbours. This is mostly because of:

9.3.1.1 Bad transport links to the EU force Tanzanian companies to go through Kenyan airports, which drives up costs.

9.3.1.2 Lack of clear government legislation on the floriculture industry causes confusion in the logistics and transport element of the industry.

9.4 Ethiopia.

9.4.1 Ethiopia is a floriculture market that has expanded exponentially since its origins in the late 1990s. Flower cultivation in Ethiopia has excelled for the following reasons:

9.4.1.1 Ethiopia has a good climate and fertile soil ideal for producing high quality flowers.

9.4.1.2 Strong year-on-year growth to now be the 2nd largest exporter of flowers in Africa.

9.4.1.3 Established legislation from the government, incentivising production by removing taxes during the establishing years of a floriculture company.

9.4.1.4 An abundance of arable land to expand onto given the high revenue potential of floriculture.

9.4.1.5 Sustained political and economic stability in the country attracting foreign investors particularly from the Netherlands.

9.4.1.6 Cheap cost of labour and energy allowing companies to increase their profit margins.

9.4.2 There are however, limiting factors that Ethiopia should resolve if it is to continue expanding of East Africa:

9.4.2.1 Like Kenya, lack of diversity in the exporting market. This is being tackled by targeting India and the Middle East for future sales.

9.4.2.2 Lack of brand recognition in the international market.

9.4.2.3 A scarcity of floriculture professionals in the fields inhibiting the probability of improving the quality of the flowers produced.

9.5 In conclusion, the floriculture industries of Kenya and Ethiopia are projected to grow for the foreseeable future. Subsequently, these countries will place larger stress on their supply chains and be in greater need of transport and logistical support.

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- 1.2 https://www.kebs.org/index.php?optin=com_content&view=article&id=6&Itemid=115
- 1.3 <http://www.kephis.org>
- 1.4 <http://www.kilimo.go.ke>
- 1.5 <http://kam.co.ke>
- 1.6 <http://www.fke-kenya.org/site/>
- 1.7 <http://kenas.go.ke>
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