GRADUATE SCHOOL OF DEVELOPMENT STUDIES

Reaping the Benefits of Globalization
The case of Value Chains in the Kenyan Cut Flower Industry

A research paper presented by
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Dedication

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ACRONYMS AND ABBREVIATIONS

BD-Buyer driven
BDC-Buyer Driven Chains
CC-Commodity Chain
CF-Cut Flower
DAHM-Dutch Auction Houses Model
DFA-Dutch Flower Auctions
DFID-Department For International Development
EAF-East African Flowers
ECK-Export Council of Kenya
EOI-Export Oriented Industrialization
EPZs-Export Processing Zones
EU-European Union
FBP-Flower Business Park
FDI-Foreign Direct Investments
FPEAK-Flower Producers and Exporters Association of Kenya
GCCs-Global Commodity Chains
GDP-Gross Domestic Product
HCDA-Horticultural Crop Development Authority
ISI-Import Substituting Industrialization
KARI- Kenya Agricultural Research Institute
KEPHIS- Kenya Plant Health Inspectorate Service
KFC-Kenya Flower Council
KLM-Royal Dutch Airlines
LDC-Least developed Country
MRLs-Maximum Residue Levels
OBNP-Original Brand Name Production
OEVP-Original Export Variety Production
R&D-Research and Development
SSA-Sub-Saharan Africa.
PDCs-Producer Driven Chains
PD-Producer Driven
SWOT-Strengths Weaknesses Opportunities and Threats
TFA-Tele Flower Auctions
TNC-Transnational Corporations
UK-United Kingdom
UPOV- The International Union for the Protection of New Varieties of Plants
UNDP-United Nations Development Programme
US-United States
VCA-Value Chain Analysis
VC-Value Chains
WTO World Trade Organization
M & S-Marks and Spencer
WWW-World Wide Web (The Internet)
MRLs-Maximum Residue Levels
CHAPTER 1

Introduction

1.1 Research Background

Structural and macroeconomic reforms, plus the introduction of a more liberal trading environment under WTO arrangements have provided a major boost to Kenya’s horticultural prospects. The sector currently ranks as one of the economy’s fastest growing industries and has overtaken coffee and tea as a source of foreign exchange earners and ranks only to tea, according to Kenya Flower Council (KFC). This has been reflected in virtually year on year expansion in fruit, vegetable and flower exports, a trend which is forecast to continue with total sendings predicted to rise 31% from the present level of 99,000 tonnes to 130,000 tonnes by 2003. Top on the list of fresh horticultural crops exported annually are cut flowers.

Kenya has seen phenomenal growth in its exports of cut flowers recently even taking into account mounting competition from Israel, Colombia, Zimbabwe, Ecuador, Uganda and Zambia. On the African continent, Kenya is leading in both the production and export of cut flowers. The Kenya flower industry like the horticultural sector is continuing with its rapid growth and in the year 2000 it saw another 3.6 percent increase in exports to a record 38,000 metric tonnes. Rose Exports continued to dominate the export market with sales up from 24.6 million kgs in 1999 to 28.4 million in 2000, a 15 percent increase. Cut flowers are now said to be worth over US $110 million to the Kenyan economy. Favourable climatic conditions (both tropical and temperate) reinforced with a host of other factors has made Kenya become the European Union’s biggest source of flower imports and overtaken Israel as market leader. It currently has a 25% market share, beating Colombia and Israel which each have about 16%.

1 The Kenya Flower Council (KFC) is a voluntary association of independent growers and exporters. The KFC's vision is "to be a recognised world leader in the safe and responsible production of floricultural produce".
http://news.bbc.co.uk/1/hi/business/1820515.stm

2 The prevailing conditions of unrest in Israel have (by default) been in favor of Kenyan Cut flower Industry.
Two thirds of these blooms go to the Netherlands, which dominates the trade in cut flowers worldwide through its ultra modern auction halls where Dutch wholesalers buy flowers for re-export to markets as far away as the United States and Japan. Recently, Kenyan firms have started exporting directly to the UK, and this accounts for a quarter of Kenya’s sales to the EU, making it the country’s second largest market and one that many growers now focus on.

1.2 Statement of the problem:
Kenya has traditionally earned its foreign exchange from the coffee, tea and tourism sectors. But in recent years, the horticultural sector (and more specifically the floricultural industry) has become the second most important foreign exchange earner in the country after tea. The success of such a fledgling sub-sector cannot be explained in terms of heavy investments only. Compared with other agro-based sectors making use of huge tracts of land, floriculture only covers 0.003 percent of Kenya’s land mass. Moreover, Kenya’s economy has been going through doldrums for several years now. In addition, the country is poorly endowed with technological, physical and capital resources and yet in the cut flower value chains (VCs), it dominantly stands out as a force to reckon with globally. My interest in the sector been aroused by a host of factors that will be the subject of my discussion in this paper. This study is thus an attempt to provide a rich understanding of the intricate interactions in flower trade, the rules of the game and what it takes to stay afloat in this rewarding yet volatile business.

1.3 Justification of the Research Question:
There is a high affinity between horticultural VCs and Kenya’s current development strategy. As mentioned above the Kenyan economy, like most developing world economies, is still largely agro-based and heavily reliant on key performing sectors/sub-sectors. Kenya’s national dream of joining the ranks of developed countries through a vibrant growth of its economy that allows for creation of job opportunities for its citizens can be realized by exploiting vast opportunities presented by the global market in areas that it has a strong competitive advantage like cut flower farming. Kenya produces cut flowers almost exclusively for export, supplying 98% of its 40 types of flowers mainly to European countries. As a result of the Lome Convention, Kenya does not suffer from the import quotas or levies in Europe-the main conduit

\[^3\text{ibid}\]
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fore Kenyan cut flowers. Flower exports constitute an industry that earns the country over US $110 million a year. Consider for a moment the fact that 1 ha. of flowers can yield as much income as 30 ha. of tea. This shows how profitable the flower business can be. But production for the world market alone does not guarantee sustainable income growth for the country. It is not so much entry into the world's flower market which provides for sustainable income growth, but rather the manner in which this insertion takes place. In particular, the spread of global capabilities in an array of flower product supply networks has meant that value-added is increasingly found in the flower variety, purchasing and marketing rather than in production itself. This is the interesting scenario in the cut flower industry that I want to focus on in this study.

Floriculture thus clearly stands out a sector worthy of attention, not just nationally but also its role in inserting Kenya on the global map of key cut flower sourcing frontiers. Yet, even with such evidence of its contribution to the growth and sustenance of the economy in hard times and propelling Kenya into the international scene, very few studies have been conducted on the global VCs of Kenyan cut flower industry.

1.4 Research Hypothesis: Kenya’s great success in cut flower exports/production is not as a result of local initiatives alone but is a result of a host of other exogenous factors stemming from a global chain of interactions.

1.5 Goals of the study.

1. To describe the VC and Kenya’s positioning (in qualitative and quantitative terms) in the global cut flower exports market.
2. To identify the main actors in the floricultural VC nationally (Kenya) and internationally.
3. Describe relationships between key actors and their role and position in the cut flower VC.
4. Explore how Kenyan flowers explain the strength and position in the VC.
5. To find out how Kenyan flower firms can consolidate their position of the country in the cut flower VC.
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1.6 Research Questions:

1. In what ways has the sector contributed to the growth of Kenya’s economy?
   • What factors have contributed to the rapid growth of the floricultural industry in Kenya?
   • What is Kenya’s competitive advantage in the flower industry?
   • How many export varieties are produced in Kenya and by whom?
   • What is the floricultural industry’s backward and forward linkages to the Kenyan economy?
   • What incentives is the government giving to boost flower growing in Kenya?

2. Is flower growing purely a Kenyan affair?
   • How many flower firms exist in Kenya?
   • Do we have foreign presence in the Kenyan flower industry?
   • If yes, to what extent are they involved?
   • What synergies exist between local and foreign flower firms?
   • What strategies are they adopting to compete effectively in the global market place?
   • Which Turnkey production networks exist in the Kenya flower industry?

3. How is the Kenyan Flower industry integrated in the global flower value chain?
   • Which are the main markets for Kenyan flowers?
   • How are Kenyan flowers delivered to the final consumers?
   • Flowers are highly perishable goods. How is efficiency in delivery assured?
   • How is the quality of the flowers maintained during shipment?
   • What are the main innovations in flower marketing business?
   • Who governs the flower supply chain?

4. How is the sector coping with the issue of global quality standards?
   • Which organization maintains quality standards locally?
   • How are flower firms dealing with sanitary and phytosanitary conditions?
1.7 Research Methodology

I will employ both descriptive quantitative statistics as well as information acquired from questionnaires sent to flower exporting/importing firms and key informants in the floricultural industry.

Because of the nature of this paper, I will utilize both qualitative and quantitative techniques in the research. Qualitative because I have to access information from the Kenyan Flower Council (KFC) and individual firms in Kenya, the main flower auctions in the Netherlands, freight companies and the final consumer chains e.g. in Europe.

In this study, quantitative techniques have come in analyzing the data streams that are coming in from the auction houses and KFC. I will mainly also use exploratory data analysis tool to analyze the acquired information.

1.8 Key Indicators

- Company turnovers (US$/ Euros)
- Sales in volumes (Metric tons of flowers exported)
- % contribution to Kenyan economy/GDP
- Number of Jobs created by flower sector.
- Foreign and local investments in the Industry.

1.9 Type and sources of data.

In this research paper, I will make good use of both primary and secondary data. The main sources of my research data are:

a) The ISS library
b) WAU Library
c) The Kenya Flower Council (KFC), HCDA,FPEAK
d) DFAs (Aalsmeer, Flora Holland, Oost-Nederland, Zon, Naaldwijk and Vleuten Flower Auction)
e) Kenyan HORTEC Exhibitions booklets.
f) Key informants e.g. online interview with a flower expert from University of Nairobi-
1.1 Contribution of the Study
This paper will contribute to the field by enriching the understanding of the major interactions in the global flower VC (as shown in Figure 1 below) and its policy and practical implications for the Kenyan floricultural industry. The study will also attempt to examine the vast opportunities available to Kenya and other developing nations in a globalizing and highly competitive world. It will seek to reveal the important global synergies and governance structure that drives the flower industry. Major innovations by Kenyan flower firms in an attempt to remain competitive will also be explored. The strengths and weaknesses/drawbacks (SWOT) of the Kenyan and Dutch flower sectors will specifically be handled.

1.11 Limitations of this study.
This paper does not seek to give the dynamics of the actual growing of flowers but will rather focus specifically on the whole process of making flowers available to a global consumer and the innovations involved. The flower industry is actually a sub-sector of the horticultural sector of Agriculture. Apart from a few physical and online interviews contacted here in Holland and on the WWW respectively with relevant flower companies, most of the data that I have used is secondary.
2.0 CHAPTER 2

LITERATURE REVIEW:

2.1 Introduction

In this chapter, I will define concepts related to this topic and also examine in detail how the commodity chains framework facilitates our understanding of the structure and dynamics of global flower industries, and the development prospects for a nation like Kenya and the flower producing firms within it. I will do this in three sections. Section 1 is definitions of concepts; section 2 will deal with upgrading.

2.2 SECTION 1

2.2.1 Differentiating Globalization and internationalization

Dicken (1998, p.5) makes a distinction between the two processes:

- **Internationalization processes** involve the simple extension of economic activities across national boundaries. It is essentially, a quantitative process, which leads to a more extensive geographic pattern of economic activity.

*Globalization processes* are qualitatively different from *internationalization* processes. They involve not merely the geographical extension of economic activity across national boundaries but also—and more importantly—the *functional integration* of such internationally dispersed activities.

**Globalization:**

Globalization has become the new buzzword that characterizes the international economy in the waning decades of the twentieth century and in the new millennium. A growing body of work analyses globalisation processes from the perspective of ‘VCs’; that is that international trade in goods and services should not be seen solely, or even mainly, as a multitude of arm’s-length market-based transactions but rather as systems of *governance*-involving multinational enterprises - that link firms together in a variety of sourcing and contracting arrangements.
Numerous authors have debated the precise meanings of globalization (Dicken, 1998), its main dimensions (Jaffee, 1995), and whether global flows of goods, FDI, and finance capital. No one disputes the centrality of globalization to contemporary development theory. However, there is a sharp divide between theorists who see globalization as a constraint on the development prospects of non-core nations, and those who see the linkages implied by globalization as posing not only constraints but also opportunities for the advancement of developing countries.

Two fundamental changes in the global context are profoundly shaping our contemporary perspectives on development theory. First, there has been a widespread shift in national development strategies from import-substituting industrialization (ISI) to export-oriented industrialization (EOI) throughout the developing world (Gereffi, 1994). Buttressed by the policy prescriptions of powerful international economic organizations like the WB and the IMF as well as the U.S. government, this preference for EOI rests heavily on the experience of the East Asian “miracle economies” from the 1960s to the mid-1990s. During this period, Japan and a handful of other high-performing Asian economies (most notably, the “four little tigers” of Hong Kong, Taiwan, South Korea, and Singapore) attained booming exports and lofty per capita growth rates against the backdrop of relatively low income inequality, high educational attainment, and record levels of domestic saving and investment (UNIDO 2000b). East Asia has easily outpaced the other regions of the third world on a wide range of economic and social development indicators. This economic achievement is largely attributed to the adoption of EOI as the region’s main development strategy. Export-oriented industrialization is still the development orthodoxy in much of the LDCs. Kenya’s Export Strategy particularly identifies EOI as the key to the countries economic growth.

Second, there has been a major transformation in how the international economy is organized in the latter half of the twentieth century. In the period when ISI development strategies prevailed, TNCs were the dominant economic actors. They were vertically integrated and had a global reach through the operations of wholly owned subsidiaries that extracted natural resources for export or engaged in local production for sale in domestic markets around the world. Today, the exchange between core and peripheral areas has become much more
complex. The explosive growth of imports in developed countries suggests that the center of gravity for the production and export of many agro products has moved to an ever expanding array of emerging economies like Kenya-in the third world.

In the flower industry, global production networks when analysed look more like a spider's web of independent yet interconnected enterprises. Lead firms act as strategic brokers at the center of the web, controlling critical information, skills, and resources needed for the overall global network to function efficiently (Reichman, 1993). In order for developing countries and firms to succeed in today's highly competitive economy, they need to position themselves strategically within these global networks and develop strategies for gaining access to the lead firms (through synergies) in order to improve and consolidate their position.

2.3 Defining Key Concepts

(a) The Value Chain, Value Chain Analysis.

In a generalized form, the value chain (VC) describes the full range of activities which are required to bring a product or service from conception, through the different stages of production (involving a combination of physical transformations and inputs of various producer services), delivery to final consumer and even the final disposal thereof. It is also called a commodity chain (CC), value network, activities chain, production network, and input output analysis. Sturgeon (2000) proposes that the term be used to denote a particular, product-based thread of activity that, at a given time, runs through a larger constellation of activities and dynamic configurations embodied in a production network. A VC can be thought of as a sub set of a production network, a simplified snapshot taken within a much more complex and dynamic set of activities encompassed and/or represented by the network.

Another crucial dimension of VC and production networks is the spatial scale. Gereffi's (1999b) differentiates his concept of "GCCs" from Porter's (1990) concept of "VCs", in part by stating that GCCs embody an explicit international dimension. Piore and Sabel (1984), have

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4 Sturgeon 2000:6) defines a production network as "two or more VC that share at least one actor". For example all flower wholesalers in Europe sourcing cut flowers from a particular Kenyan flower firm together with the other actors above or below them in their VC would constitute a single supply network-discussed in chapter 3.

5 A GCC according to Gereffi refers to the whole range of activities involved in the design, production, and marketing of a product (Gereffi and Korzeniewicz, 1994).
in addition to this, drawn attention to the tendency for specialized industrial clusters to form at
the sub-national, and even local level. Flower export production firms are part of VCs because
they often rely on groups of other non-flower producing firms that tend to specialize in a
particular component, process, or service required to bring the flower products to the final
markets.

Porter identified the “VC” as a means of analysing an organisation's strategically relevant
activities in order to understand the behaviour of product costs. Competitive advantage comes
from carrying out those activities in a more cost-effective way than one's competitors.

Porter's (1985) Competitive advantage argument breaks the VC model into two distinctive
types, these being primary and support activities. The model suggests, that no matter how many
operational units that are involved in the process of generating customer value; these primary
activities can be conceptualised into five generic stages. The five primary stages are inbound
logistics, operations, outbound logistics, marketing and sales, and service. These primary
stages are supported by the firm's infrastructure, human resource management, technology
development, and purchasing and procurement. The various stages within the VC should not be
seen in isolation but looked at in a wider context and include the interactions between stages
not just within the processes. The relationship between sales, operations, and procurement for
instance can determine how much stock is to be carried and therefore reflected in cost of
inventory held.

The VC is, consequently, a concept which not only facilitates research but also provides
practical insights into policy at both the corporate and government level.

Related to VCs is the concept of VCA that overcomes a number of important traditional
weaknesses of sectoral analysis, which tends to be static and suffers from the weakness of its
own bounded parameters. In restricting itself to sectoral analysis, it struggles to deal with
dynamic linkages between productive activities that go beyond the sector in question, whether
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they are of an inter-sectoral nature or between formal and informal sector activities. The VC also goes beyond the firm specific analysis of much of innovation literature. By its concentration on interlinkages it allows for an easy uncovering of the dynamic flow of economic sectors even on a global scale. Value chain analysis is particularly useful for new producers-including poor producers and poor countries (e.g. Kenya)-who are trying to enter global markets in a manner which would provide for sustainable income growth.

As an analytical tool, VCA is important in understanding the policy environment which provides for the efficient allocation of resources within the domestic economy, notwithstanding its primary use thus far as analytic tool for understanding the way in which Kenyan floricultural firms and the country as a whole participates in the global economy. The usefulness of VCA has been demonstrated in studies of industries as varied as fresh fruits and vegetables, and automobiles (Dolan 1999, Gereffi 1999, Humphrey 1998). In the flower sector, a detailed understanding of actors, linkages, and value-added at each stage of production and distribution seems to be a necessary underpinning for meaningful efforts to upgrade the industry to cope with current global market trends. Such an understanding also raises important questions. Why for example, does a single activity in the chain\(^6\) garner nearly half the profits, while another (actual production) gets less than 10%. Why are certain activities dying out or being absorbed by more powerful actors above or below the VC?\(^7\) Why have most Kenyan flower producers failed to penetrate regional or global markets and continue to export mainly to the traditional DFAs?\(^8\) Some answers will follow from the VCA itself, but finding answers to some of these questions will require a broader perspective.

VCA identifies those areas of production which are subject to intensifying competition, and hence declining terms of trade. Simultaneously, it exposes those processes which allow poor countries and poor producers to upgrade their activities in a manner which can provide for sustainable income growth. VCA thus provides framework for understanding the concrete actors in the flower sector and other Kenya industries. A production network approach adds to

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\(^6\) For example flower auctioning in Holland.
\(^7\) Lead firms are taking over some of the production or service provision functions of the smaller firms.
\(^8\) Dutch Flower Auctions.
the picture by encouraging us to focus on the connections between firms and their subsidiaries, not only the vertical linkages that comprise the value chain, but also the horizontal ones between firms and various other actors (Sturgeon 2000)

b) The Input-Output Structure of Chains
Central to the VC concept is that the goods and services consumed in final markets are themselves the product of several divisible or discrete stages of economic activity. Within this perspective, input-output analysis quantifies these inter-industry relationships and offers a means of evaluating the impact across industries and national economies and the changes in final demand. This same analytical perspective is also applied to the analysis of the direct and indirect employment impacts of industrial demand. Many jobs are generated upstream and downstream in the VC. In Kenya, the Cut flower chain is estimated to create over 50,000 jobs (KFC Newsletter). Every direct job in the industry indirectly generates an additional 2 jobs elsewhere in the chain.

c) Types of Global VCs
Gary Gereffi’s (1999) seminal work distinguishes between producer-driven and buyer-driven (BD) CCs hereafter called PDCs and BDCs respectively that will further be discussed in detail under chain governance in section two.

2.3.1 VC Governance
Gereffi’s analysis of the power structure of CCs leads to the hypothesis that development requires selective linkage with distinct kinds of “lead firms” in global industries, which have varying prospects for mobility in the world economy. Two types of chain governance namely Producer Driven Chains (PDCs) and Buyer Driven Chains (BDCs) will be discussed in detail. A discussion of the lead firms in the cut flower industry and flower VCs, will exemplify PDCs and BDCs, respectively.

This section deals with the vital concepts of: governance, rents and upgrading. It’s divided in four parts. The first part deals with governance within the cut flower chain; the second deals with rents; the third with upgrading and the fourth explores how GCCs can be used to study
industrial upgrading. The upgrading section gives a brief overview on the concept of upgrading tailored for the flower industry. I briefly illustrate how the GCC approach (as proposed by Gereffi) can be used to study multiple dimensions of industrial upgrading, which is one way to operationalize the more complex concept of economic development. Particular emphasis is given to the notion of upgrading as the flower export role in the Kenyan economy shifts. Finally, some of the theoretical implications of GCC approach to industrial upgrading will be outlined. But first I will examine the issue of governance in the VC.

An entry point to the concept of governance is the VC concept (as discussed earlier) which offers a unifying framework for this study of enterprise strategy, the governance of the chain, and labour policy implications arising from industrial transformation in the global economy.

As pointed out by Gereffi, CCs/VCs have four dimensions:

- an input-output structure, or sequence of economic relationships;
- a territoriality or geography described the spatial organization (whether dispersed or concentrated) of the chain;
- a governance structure of authority and power relationships (who is "driving" the chain);
- Institutional and regulatory influences on the chain.

Gereffi (1999b) identifies two distinct types of international industrial organization (chain governance) through VCs- namely: producer driven chains (POCs) and buyer-driven chains (BDCs) summarized in the table 1 below that also gives some examples.

a) PDCs: are characteristic of those industries in which multinational enterprises "play the central role in controlling the system including its backward and forward linkages", and include such capital and technology intensive industries as automobiles and computers. It is thus the manufacturer that plays the predominant role in establishing the terms and conditions of production in components and supply industries, as well as the conditions of final distribution. PDCs in the flower sector are those in which large (usually foreign) firms play the central roles in coordinating production networks (including their backward and forward linkages). This is
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characterized by the capital investments and technology-intensive component of the respective firms.

Table 1- Producer and Buyer Driven GCC

<table>
<thead>
<tr>
<th>Drivers of GCC</th>
<th>Producer Driven CC</th>
<th>Buyer-Driven CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial capital</td>
<td>R&amp;D; Production</td>
<td>Design; Marketing</td>
</tr>
<tr>
<td>Core competencies</td>
<td>Economies Of Scale</td>
<td>Economies of Scope</td>
</tr>
<tr>
<td>Barriers to Entry</td>
<td>Consumer Durables</td>
<td>Consumer Non- Durables</td>
</tr>
<tr>
<td>Economic Sectors</td>
<td>Intermediate Goods</td>
<td>Capital Goods</td>
</tr>
<tr>
<td>Typical Industries</td>
<td>Automobiles; computers; Aircraft</td>
<td>Apparel; Footwear; Toys; Cut Flowers***</td>
</tr>
<tr>
<td>Ownership of man firms</td>
<td>TNCs</td>
<td>Local Firms, predominantly in developing countries</td>
</tr>
<tr>
<td>Main Network Links</td>
<td>Investment-based</td>
<td>Trade-based</td>
</tr>
<tr>
<td>Predominant network Structure</td>
<td>Vertical</td>
<td>Horizontal</td>
</tr>
</tbody>
</table>

Source: Gereffi 1999b

b) In contrast, BDCs "refer to those industries in which large retailers, branded marketers, and trading companies play the pivotal role in setting up decentralized production networks in a variety of exporting companies, typically located in the Third World." It is thus the distribution channel that drives production as shown in the diagram below. While this is most obvious in the case of retail or department stores, such as Marks and Spencer (M&S), it also applies to "branded firms", such as Nike in footwear, The Gap in apparel or M&S UK in the flower chain. The latter are associated with flower products that bear their name, but, for the most part, own no production facilities. They are, instead, "marketers those design/determine, but do not make/produce, the branded products they order". The traditional pattern of trade-led industrialization/production is now being extended to a range of floricultural products. Production is generally carried out by tiered networks of third world contractors that mainly produce fresh cut flowers for foreign buyers. Information on the specifications/varieties in demand is supplied by the large retailers or marketers in the consumer nations that order the goods.

The main characteristics of the firms that fit the cut flower industry's BDC, including retailers

9 I believe that flowers fall in this category
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

Like Tesco, Sainsbury, M&S, Flamingo (among others) is that these companies market—but do not produce—the branded products they order. They are part of a new breed of "flower producers without farms" that separate the physical production of floricultural goods from the packaging and marketing stages of the production process. Profits in BDCs derive not from scale, volume, and technological advances as in producer-driven chains, but rather from unique combinations of high-value research, design, sales, marketing, and financial services that allow the retailers, packaging designers, and marketers to act as strategic brokers in linking overseas factories and traders with evolving product niches in their main consumer markets.

Do these distinctive types of industrial organization also refer to distinctive geographies? To some extent, this would appear to be the case. Horticulture-related BDCs, are characteristic of substantial labour-intensive phases of production and thus of locations in which the traditional basis of comparative advantage lies in factor costs such as labour. One would expect the international organization of, say, the greenhouse technologies industry to span fewer geographical cost or development levels. The difference between the two is where the barriers of entry to competition in the chain are greatest (Gereffi and Korzeniewicz, 1994). For the flower chain, actual production (for open air flower varieties) requires relatively little capital or advanced skills and can thus be located where costs are most favourable. Greenhouse flower production, however, is both capital-and skill-intensive which both minimizes the importance of labour costs and narrows the locations where appropriate inputs can be found and number of firms that can utilize these technologies.

The governance of cut flower chains thus appears to be more "BD" than from production to distribution. This governance shift is reflected in the higher service component of traditional Dutch flower sectors—in purchasing, marketing, packaging, and distribution. This shift would seem reflected in the views of many managers that it is increasingly the customer who is "calling the shots", whose demands in terms of price, quality and product differentiation have increased the importance of the downstream function of distribution and service. The difference, is between the older "I will sell what I produce", and the newer view "I will produce what you need".
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

The governance question is also closely related to that of chain ownership. The economic ties in any VC are established either through the common ownership of links in the chain, as, for example, through the common ownership by a national international flower enterprise[^10] of its foreign affiliates, or through contract. Flower firms are for a variety underlying reasons returning to their "core competencies", contracting out for activities they once owned and/or. The 'Key principle' here is that greater competition in the cut flower industry has required some firms to take a close look at the competitive performance of each, individual value-adding activity. This often translates into a "produce" or "buy" decision, since it may be cheaper, better, and less risky (i.e. through increased flexibility) to purchase rather than to own flower farms in Kenya.

A second observation that can be made from the sector is that inter-firm relations have not merely grown in number, but evolved along qualitative lines as well. The competitive value of cooperation, of establishing long-term relations, of information-sharing can be argued to be diffusing—at least as it characterizes the activities of major final importers (auction houses/established supermarket chains) or retailers with a first tier of subcontracting firms. Even if this is true, however, it is likely to be a trend that coexists with its opposite; that is, with conditions that deteriorate as one descends the hierarchy of contracts. The "bottom of the chain" in the cut flower poses these concerns sharply.

A third aspect of the governance question relates to the variety of implications that a given unit's/location's place in the VC holds for its sustainability and improvement. Power relations and strategic options clearly vary, and this observation has two-fold significance. First, it is appropriate to think of enterprise strategies at every location in the chain. When Flora Holland or Aalsmeer decide to change their worldwide cut flower sourcing policy, or when major wholesalers/retailers in Europe replace their domestic flower sources with foreign ones, the reverberations of such major strategic initiatives are felt up and down the chain. Still, at each location, a range of strategic options exist and will differ, and the factors shaping those options will differ as well.

[^10]: For example Flora Holland that has heavily invested in Kenya
Second, it is appropriate to think of strategic options as applying to other actors in the flower trade than just the lead firm(s). Local authorities/politicians in Kenya, for example, will be interested in the sort of spillover or multiplier effects that a particular position in an international VC conveys. In line with this, Gereffi, for example, argues that developing country locations can link to international markets in an ascending range of functional ways. Primary commodity exports or mere assembly for export of imported inputs may represent only the most minimal of such linkages, either the least profitable or least sustainable positions. As, however, locations ascend the hierarchy of strategic positions within the chain, the multiplier effects increase. For example, using what I call Original Brand Name Production (OBNP) analogy of flower firm’s activities mentioned earlier, it can be seen in the sector that under contract to brand name wholesalers in the UK, Germany or Switzerland, aggressive Kenyan firms are using the technology, expertise and business connections they have acquired from foreign firms present in the sector as a springboard for independent market entry. With concerted efforts, they are also far more likely than the big DFA houses or large producers in other flower exporting countries like Colombia or Israel to build substantial backward and forward linkages in the local economy.

2.3.2 Rents
Adapting and extending the typology of rents in Kaplinsky (1998), and Schumpeter, PDCs in the flower industry rely primarily on technology rents, which arise from asymmetrical access to key product and process technologies; and organizational rents, which refer to a form of intra-organizational process know-how that originates in Holland and is particularly significant in the transition from mass flower production to mass marketing (or flexible production and supply depending on global demand), involving a cluster of new organizational techniques such as JIT flower production\(^\text{11}\), total quality control, modular production, preventive maintenance, and continuous improvement. Examples of rents are given in Box 1. The lead firms in the cut flower industries VCs use barriers to entry to generate different kinds of "rents"\(^\text{12}\) (discussed below) in global cut flower trade making entry of new cash trapped players almost impossible. Closely linked to this concept of rent is upgrading.

\(^{11}\) This is with regards to the seasonal flower sale trends i.e. peak season and low season.

\(^{12}\) Broadly defined as returns from scarce assets.
2.3.3 Upgrading

This concept has been used in other industrial processes (Gereffi and Tam 1998), but I will adapt it to the floricultural industry. An important point to note is that industrial upgrading is embedded in a social structure of producers, which is made up of "organizational chains" of buying and supplying firms. From this perspective, industrial upgrading involves organization learning to improve the position of firms or nations in international trade and production networks (ibid).

<table>
<thead>
<tr>
<th>Box 1: Different kinds of economic rents in FVC—after Shumpeter</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Economic rent arises in the case of differential productivity of factors and barriers to entry</td>
</tr>
<tr>
<td>• Prevalent forms of economic rent in the global economy: Examples of endogenous (&quot;constructed&quot; rents)</td>
</tr>
<tr>
<td>• Technology rents—having command over scarce technologies (Netherlands, Israel)</td>
</tr>
<tr>
<td>• Human resource rents—having access to better skills than competitors (Netherlands, Israel, Kenya)</td>
</tr>
<tr>
<td>• Organizational rents—possessing superior forms of internal organization (Netherlands)</td>
</tr>
<tr>
<td>• Marketing rents—possessing better marketing capabilities and/or valuable brand names (Netherlands, Kenya).</td>
</tr>
</tbody>
</table>

Other rents are endogenous to the chain and are constructed by groups of firms—e.g.

• Relational rents—having superior quality relationships with suppliers and customers [Aalsmeer B.V., Naaldwijk (Dutch); Oserian, Homegrown (Kenyan) etc]

3. But rents can also be exogenous to the chain and arise through the bounty of nature:

• Resource rents—access to scarce resources e.g. Vast and fertile tracts of land (Kenya, Colombia)

4. Producers also gain from the rents provided by parties external to the chain:

• Policy rents—operating in an environment of efficient government: constructing barriers to entry of competitors (Netherlands, Kenya)

• Infrastructural rents—access to high quality infrastructural inputs such as telecommunications (Israel, Netherlands)

• Financial rents—access to finance on better terms than competitors (Netherlands, Israel)

Note: rents are dynamic—new rents will be added over time, and existing areas of rent eroded through forces of competition.

Participation in GCC is a necessary step for industrial upgrading because it puts firms and economies on potentially dynamic learning curves. There are many obstacles, however, to moving up these chains. The barriers to entry for each export role are more demanding as one moves along the industrial upgrading trajectory. Subsequent stages generally require the mastery of skills associated with the previous stage, although new resources and capabilities are also involved in upgrading shifts. Entry into the flower VC in the production/export role, for instance, requires that an economy have low labor costs, political stability, and favorable
quotas or other forms of trade access to major export markets. Kenya fulfills these conditions adequately.

In addition to the foregoing conditions, the shift from cut flower production to the OBIPNI role requires a local infrastructure and synergetic interaction of firms capable of supplying a variety of flower production inputs and services. Examples are: pumps fertilizers, sprinklers, greenhouses, cooling facilities, export packaging and freight services including charter planes) at the quality and/or quantity levels required for export production/global supply, as well as a good working relationship with a new set of foreign buyers (e.g., retailers and marketers) willing to place full-package orders.

2.3.4 Four paths in Upgrading:

1. **Process upgrading**: Increasing efficiency of internal processes such that these are significantly better than those of rival firms, both within individual links in the chain (e.g. increased inventory turn), and between the links in the chain (e.g. more frequent, smaller and on-time deliveries-e.g. ready bouquets sales to UK/German markets)

2. **Product upgrading**: introducing new products or improving old products faster than rivals (Oserian/HOMEGROWN). This involves changing new product development processes both within individual links in the VC and in the relationship between different chain links

3. **Functional Upgrading**: increasing value added by changing the mix of activities conducted within the firm (e.g., taking responsibility for, or outsourcing accounting, logistics and quality functions) or moving the locus of activities to different links in the VC-Sher Agencies. Deloitte and Touché as shown below diagrammatically

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10 Original Brand Name Production e.g. Valentine Flowers Firm specializing in high quality roses.
4 **Chain Upgrading** moving to a new VC (e.g. from flower growing to: supply of green houses, providing: tissue culture, consultancy product and marketing info and import materials—Oserian: From tea to flowers—Finlay Flowers; from buying flowers to growing them—Flora Holland

Sustained competitiveness in the world economy (shown below) involves continual changes in economic roles and capabilities. New exporters are constantly entering global commodity chains, which is pushing existing nations and firms to cut costs, upgrade, or exit the market. There is a perceived need to run faster meet global standards and be more efficient to stay in place. To facilitate adjustment and indeed survival in the volatile, contemporary international environment, industrial upgrading typically requires organizational linkages to the buyers and suppliers in developed country markets.

**Figure 4: Competitive pressures in the cut flower Industry.**
The GCC framework provides us with a set of tools for understanding not only the importance of strategic positioning by firms and nations in global industries, but also the ways in which institutional and regulatory factors can shape development prospects in the world economy.

In the global cut flower industry, one of the clearest qualitative indicators of industrial upgrading are the role shifts involved in moving from production (using imported inputs e.g. fertilizers, sprinklers, pumps etc) to more integrated forms of manufacturing and marketing associated with the locally based OBNA analogy and OEVP⁴ export roles as proposed by Gereffi (1994). Flower firms participation in supply networks (often associated with cut flower EPZs) is considered the first step in the upgrading process because it teaches flower exporters about the price, quality and delivery standards used in global markets. Thus, entry into the cut flower CC via the production role requires learning how to work with organizational buyers such as: fertilizer, fungicide and pesticide manufacturers, seed producers; auction houses/trading companies, and supermarket chains/consumer outlets that supply the exporting firm with inputs needed to grow quality flowers and crucial information about flower market dynamics (demand side information).

The most typical upgrading move following flower production is full-package production. This is useful for Kenya’s success in cut flowers GCC because compared with the mere supply of imported inputs/technologies; full-package production is fundamentally changing the relationship between flower buyers (e.g. supermarket chains) and suppliers (flower producing firms) in a direction that gives far more autonomy and learning potential for industrial upgrading to the suppliers. Full-package production is needed because the retailers and marketers that order the flowers do not know how to produce them. Thus, the suppliers must learn how to do everything (e.g. packaging, making bouquets, branding etc) and they frequently do so in a relatively long-term relationship with the buyers. Moreover, if the buyer is a marketer, the supplier can closely observe its client’s behavior in response to changing market conditions. The more stable and open the relationship between the buyer and the

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¹ What I call Original Export Variety Production-drawing from Gereffi’s work.
supplier, the more favorable is the environment for observing and learning from the buyer.

These patterns of global sourcing highlight two distinct models of competition in the flower industry. First, there is the DAHM\textsuperscript{15} in which national exporters in Holland offer full-package flowers to the main consumer nations that include U.S, Germany and Japan. This allows them to dominate the higher value side of the trade mainly: swift technology-intensive marketing of quality flowers in response to an ever-growing global demand. Second, there is an emerging SMC\textsuperscript{16} in which rules of flower origin and production standards is creating an incentive for more integrated flower production in Kenya. This is especially evident with the new trend towards the bigger firms directly accessing final markets as will be discussed in the next chapter.

Profitability is greatest in the relatively concentrated segments of GCC characterized by high barriers to the entry of new firms. We can get an understanding of this by looking at the cut flower sectors producer-driven chains-where auction houses selling high quality flowers like Roses, carnations or chrysanthemums are the key economic agents not only in terms of their earnings, but also in their ability to exert control over backward linkages with regards to technological/capital investment flows and flower production input supplies, and forward linkages into global flower distribution and retailing. Most lead firms in Kenyan PDC belong to powerful politicians and or foreign firms. But BDC chains, by contrast, are characterized by highly competitive and globally decentralized wholesale supermarket chains. The companies that develop and sell brand-named products exert substantial control over how, when, and where flower production will take place, and how much profit accrues at each stage of the chain. Thus, whereas PDC chains are controlled by large flower producers at the production stage, the main leverage in BDCs is exercised by wholesalers and marketers at the distribution and retail end of the cut flower chain.

\textsuperscript{15} Dutch Auction Houses Model
\textsuperscript{16} Supermarket Chains Model. This will be discussed in chapter three
2.4 Using GCCs to Study Industrial Upgrading

This section raises the question: what factors account for the upgrading or moving up market of links in the VC? It is here where the strategic options of other actors can play a significant role. The policy orientation and specific actions of the national and local state play a major role in determining whether FDI can be the trigger for a sustainable local industrial development path, or whether local industry remains dependent for its existence or competitiveness on infusions from foreign firms. A global VC approach could help in mapping out a sort of "taxonomy" of models and policy options of how local development and employment growth can vary depending upon differences in flower production/supply organization and differences that relevant institutions and policies directly influence.

An interesting aspect of globalization is, in large part, the ability of producers to slice up the value chain, i.e., to break up the production process of a commodity into many geographically separated steps (Porter, 1990). This global dispersion of CCs increases opportunities for developing countries like Kenya, Zimbabwe Zambia or Uganda to participate and gain from trade because it provides greater room for them to specialize in the labor-intensive stages of the flower production process. In the case of Kenya such a window not only yields the much needed foreign exchange but also creates jobs for a majority of unemployed people and a steady income for the mushrooming number of flower growers in the country. Industrial upgrading, from this perspective, involves moving up GCCs from labor-intensive activities to more capital- and skill-intensive economic activities that involve organizational learning to improve the position of firms or nations in international trade and production networks (Gereffi, 1999). More Details on upgrading are in the next chapter.

2.5 Forms of incorporation into the global economy: Hierarchies, Network and Markets

While the capacity of flower firms to upgrade may be a necessary condition for gainful incorporation into the global economy, it may not be sufficient. Other factors determine which of these producers will be incorporated into the global flower production networks. The same factors will determine the scope which large and small (individual) flower producers have for upgrading their activities. In understanding these factors, as well as the implications which they
have for the capacities of SMEs to upgrade, it is important to identify the different modes in which producers are linked into final markets. This will allow us to understand both the distinct and changing roles played by FDI, by buyers and by industrial clusters in facilitating the insertion of small producers into global cut flower product markets. Moving on from here, it will later be possible to identify practical steps which can be taken to promote upgrading of small CF producers.

VCA identifies four major forms of incorporation of producers into the global economy (Humphrey and Schmitz, 2000):

a) Arms length trading relationships between producers and buyers, which are essentially impersonal in nature; Network relationships between “equals”, i.e. firms holding complementary assets and selling to final markets;

b) Quasi-hierarchical relationships, with (a) dominant governor(s) coordinating global production and exchange, but with no or only weak equity links; and

c) Hierarchical relationships involving close equity ties and FDI.

Each of these forms of incorporation involves the participation of certain key actors that will be discussed further in Chapter 3.
3.0 CHAPTER 3

Case Studies

Global Interactions and How Kenya Has Captured Niche Markets in Europe

3.1 Introduction

This chapter shows how Kenyan firms have managed to consolidate themselves in the cut flower industry. It has several parts that focus on the geography of the Kenyan cut flower VC, Kenya’s comparative and competitive advantages, how Kenyan firms access final markets, the Dutch connection, Kenyan European cut flower supply chains and some of the key challenges facing the CF industry.

3.2 Geography of the flower Chain

The geography of the world economy is expanding as international production expands through the liberalization of domestic trade and investment regimes in many developing countries, as well as their orientation toward export markets. In 1994, an unprecedented 40 percent of the world’s FDI were directed to developing countries-a trend that can still be expected to continue.

As a result of trade liberalization, competition for all products/services in the global marketplace is now intense or volatile even for cut flowers products, but the competition is not based on product variety and rapidly changing consumer tastes, it is based on price. The lower end of the Kenyan cut flower industry fits this particular chain geography. Competition is more intense in a world market of: slower growth, more affluent and informed consumers and demanding and rapid technological change. This is reflected in the seasonal fluctuations of flower sales that present either a potential or threat to dedicated all season LDC cut flower producers like Kenya. Flower product markets that were once more homogeneous have segmented into niches, and firms now describe themselves as "consumer-oriented" and have evolved competitive strategies based on quality, rapid innovation, and differentiation favor proximity to final markets first, because their response to market demand can be more rapid, and second, because non-price competitive factors (quality service, product
differentiation/packaging) are of relatively greater importance than, say, the cost of labour or other factors of production. Tendencies such as these argue for a VC that in geographic terms may be "deep" rather than "long".

The geography of VCs would, therefore, seem to rely part on whether competitive factors are primarily those of "comparative advantage" - or the price and quantity of factor endowments, whether these be expansive fertile lands; favorable weather conditions or abundant, inexpensive labour (case of Kenya) - or those of "competitive advantage", a variety of non-price factors that can be acted upon or "created" by firms (e.g. Flora Holland, Aalsmeer-Holland; or Oserian, Sulmac, Homegrown-Kenia) and, indeed, by governments and other actors.

Finally, one can think of how the impact of IT on the "economics" of proximity could be very great, but the impact in the flower industry seems to pull in opposite directions. On the hand, it enables former barriers of time and distance (in terms of export logistics) to be handily overcome, and thus renders proximity less relevant through online flower orders/purchases and an ever increasing efficiency in airfreight services.

As suggested earlier, technological advancement, in promoting the tradeability of services, may be one factor behind the rising tendency for international flower firms to locate not just whole lines of cut flower business, but-more narrowly- specific business functions, (e.g. accounts processing; quality standards certification; insurance; banking; greenhouse technologies; chemical manufacture etc), in locations with the best mix of advantages.

Market leaders (in this case Dutch auction firms) have traditionally adopted an offshore flower sourcing strategy that significantly lowers costs upstream in the VC. This combined with investment in technology and infrastructure has given them an upper hand in the business which they must contend for. To cope with prevailing market conditions, competitors (like Kenya) are fairly well compelled to follow suit. The outcome may be leading to the regionalisation of production, as "high-cost" locations take advantage of near-by low-cost sites for production activities:. But, as argued above, flower seasons that more rapidly succeed one
another in relatively high-margin niches of the cut flower market could favour domestic production -i.e. staying close to the final consumer market. Technological improvements in, pool of expertise and increased investments in the flower sector is allowing Kenyan firms to reconfigure the geography of the cut flower chain in order to take advantage of both low production costs and rapid market responses in a regional approach to organizing production.

3.3 Kenya’s Comparative and/or Competitive advantage

a) Humble beginnings: This is a brief summary of the Kenya’s competitive/comparative advantage in the cut flower industry tracing its origins and highlighting major steps in its growth and diversification. A considerable expansion of Kenyan cut flower industry was experienced in the 1980’s when the country was officially recognized as a major ‘off-season’ supplier of fresh produce to Western Europe. The steady growth of horticultural exports and more specifically cut flowers saw the geographic spread of flower production to such areas as Kiambu, Athi River, and Embu, while Naivasha remained the core of the floricultural industry. Commercial introduction/expansion of many new varieties listed below among others; saw a sharp increase in export volumes making floriculture a major agricultural export earner.

Presently, there are some 5000 farmers in Kenya or in enterprises that commercially produce cut flowers. According to KFC, current production for export purposes is concentrated on some two dozen large/medium scale operations. Up to 75% of the total exports is accounted for by the largest 25 producers. Compared to its maiden years when only two companies accounted for the bulk of cut flowers exports, the industry currently has a wider breadth with many visible players.

The production and distribution of cut flowers to European markets is interesting from the supply chain perspective given the technical properties of the commodity set, as well as certain features of their trade. For example, cut flowers are highly perishable, having a vase and marketable life ranging from a few days to a couple of weeks. This demands an effective and un-interrupted cold chain, highly efficient long distance freight transportation arrangements, and mechanisms for rapid sales of the flowers. Any breakdowns in the system normally results in heavy financial and product losses.
Table 2 List of some of the key flowers from Kenya.

<table>
<thead>
<tr>
<th>Agapanthus</th>
<th>Car. Cutting Unroot</th>
<th>Heliconia</th>
<th>Rudbeckia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alstroemeria</td>
<td>Carnation, Std</td>
<td>Hypericum</td>
<td>Solidago</td>
</tr>
<tr>
<td>Ammi Majus</td>
<td>Cardthamus</td>
<td>Lilies</td>
<td>Solidaster</td>
</tr>
<tr>
<td>Anthuriums</td>
<td>Chysan Cuttings</td>
<td>Lisianthus</td>
<td>Stactice Beltard</td>
</tr>
<tr>
<td>Aramicum</td>
<td>Cut Foliage</td>
<td>Lilies</td>
<td>Stactice Limonion</td>
</tr>
<tr>
<td>Arum Lilies</td>
<td>Delphinum</td>
<td>Molucella</td>
<td>Strelitisa</td>
</tr>
<tr>
<td>Asters</td>
<td>Eryngium</td>
<td>Orchids</td>
<td>Tuberose</td>
</tr>
<tr>
<td>Atriplex</td>
<td>Euphorbia</td>
<td>Ornithogalum</td>
<td>Veronica</td>
</tr>
<tr>
<td>Bamboo</td>
<td>Gypsophilla</td>
<td>Papyrus</td>
<td>cymbidium</td>
</tr>
<tr>
<td>Bupleurum</td>
<td>Helinium</td>
<td>Roses</td>
<td>liaris</td>
</tr>
<tr>
<td>arum</td>
<td>dill</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: www.sianroses.com; FPEAK: KFC, KARI publications

Cut flowers also feature high variability in their quality. This strongly correlates with the dynamic changes in final consumers color and quality preferences. The quality variability makes it difficult to undertake bulk ‘on description’ transactions necessitating repeated physical inspection of the product down the distribution channel. As in the case of DFA, supplier reputations are also an important signaling devise for quality and value. The rapid turnover of the product, together with its wide quality and variability places a premium on accurate and up-to-date market and transaction information within the supply chain. An efficient system of auctions, agency relations, and direct contracting has developed to manage the physical distribution of perishable flowers and to scale down the on the huge transaction costs typical of the flower trade.

The growth and maturity of the flower industry in Kenya has been matched with growers and exporters awareness of consumer preferences in terms of flower varieties, colors and assortments. Currently, Kenya commercially produces over 40 different types of flowers each with a host of varieties—the most profitable from this array being roses, alstroemeria and statice. These have maintained a leading market position since the mid 90’s replacing carnations that were once the dominant focus of the industry in its maiden days fledgling years. Contrary to this trend, there’s a growing demand for bouquets sold by leading European supermarket chains like Sainbury, Tesco, M & S and a wholesaler like Flamingo among others who translate into
increased production into supply.

Profitable cut flower production is a challenge and calls for a huge capital outlay and technical capability. Some flowers are annual others perennial calling for different inputs. For a floriculturalist, this translates into cost of production and availability of infrastructure that determines economies of scale. Roses and carnations require a heavy (initial) capital outlay incurred every five and two years respectively. Investment costs for field grown flowers for example are considerably less than in the case of greenhouse-grown flowers. In Kenya, a greenhouse structure costs between US$ 35,000-75,000 per hectare depending upon the materials used construction (i.e. plastic, wood or steel) and other factors. Box 3 gives a summary of challenges would be flower farmers have to contend with.

Box 3 Challenges facing prospective flower farmers/investors. To join set up shop, a would-be Rose Farmer/Investor will be faced with finding capital for the following: -

- Survey, feasibility study, design, nursery, land and water exploration.
- Suitable land, access, levelling, site preparation drainage and fencing.
- Wells, boreholes, submersible pumps, booster pumps and ring mains.
- Water storage, fertigation distribution system.
- Suitable Green Houses.
- Bed preparation and drainage.
- Storm water drainage.
- Planting stock.
- Roads, parking and loading area.
- Infrastructure - Storage, grading and packing buildings, cold stores with pre-cooling unit, offices and sanitation.
- Packing equipment, grading and bunching machines, grading and boxing tables.
- Housing.
- Utilities for electricity, water and sewerage. Backup Power supply, fuel storage, switchgear, controls and cabling.
- Trucks, tractors and material handling for flowers.
- Sprayers, humidifiers and sulphur burners.
- Water buckets, secateurs and miscellaneous equipment.
- Stores - boxes, chemicals and fuel oil.
- Local expertise and culture.
Access to water, availability of infrastructure (especially electricity, telecommunications/internet and transport) climatic conditions and a host of other factors largely determines the entry of new players in the Kenyan cut flower production.

Expanded growth in the cut flower industry in Kenya has provided a basis for the emergence of a technical support cluster (with a large foreign content) comprising of irrigation equipment planting materials, greenhouse and marketing advise, logistical, and technical support. The Dutch, Israeli, British and Danish companies have invested heavily in these areas.

A major challenge in the highly dynamic cut flower supply chain is achieving growth and security. Firms have and still are envisioning (ingenious) strategies such seeking niches where market competition is less fierce, shifting to more profitable stages in the production and logistics process, developing new skills or more efficient technologies, and/or forging intensive trading partnerships that involve joint decision-making And risk-and profit-sharing (Jaffee 1995; Kaplinsky 1998).

b) Developing export capacity

A new surge in cut flower production and exports in Kenya in the 1990’s (stemming from local factors) came with the liberalization of Kenya’s foreign exchange control regime, the streamlining of (equipment, planting material, other inputs) importation procedures, and the government’s withdrawal from trying to manipulate the air-freight market. Aggressive investment promotion efforts locally and internationally by ECK, KFC, Ministry of Tourism Trade and Industry immensely contributed to the strengthening of the technical support network for the flower industry. A westward expansion of the industry to Nakuru, Kitale, Eldoret, and Kericho came with drastic improvements in infrastructure that included the new international Airport at Eldoret.

Expanded rose flower production accounted for the bulk of the floricultural industry’s growth in the 1990’s. Kenyan rose plantings (1990-1997) increased from a mere 27 hectares to 550 respectively. The mushrooming rose production came as a result of the following factors:
1. Increased global demand by consumers for quality roses
2. Relatively high prices for roses in Europe—especially UK.
3. Full involvement of many of the pre-existing growers as well as a host of new investors both local and foreign.

These factors have sparked off an unprecedented race for rose flower production, with several exporters and non-flower related investors entering production on a commercial scale. Rose farms were more than a profitable enterprise. They had become status symbols for the rich and are generating a totally new (and currently flourishing) agro-tourism business.

Establishment of local rose flower nurseries by international plant propagators, intensive research from KARI and the availability of low cost finance from the European Development Bank and other loan institutions facilitated the rose boom. A number of start-up operations benefited from technical support from APDF. New investment streams continued well into the late 1990s—a period that also saw a sharp decline in global prices for both large and small roses. A glut in the flower market (stemming from the entry of new competitors) helped push prices down. Varieties that still remain profitable to date are Sweetheart/Valentine roses. From a production and marketing perspective, the losers in this race have been:

1. The new entrants who have incurred heavy financial losses and have had to quit, uproot and/or replant rose bushes to survive the competition.
2. Companies that have not invested in: up to date flower varieties, sound management systems nor adopted ingenious marketing strategies.
3. Farmers who invested in roses simply as a side business venture(s) for status reasons.

3.4 The Kenyan-European Cut Flower VC Networks and Production Networks

Organization of this part is as follows: The *first* part highlights some of the key characteristics

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17 Africa project Development Fund (APDF) provides project loans for most cut flower startups.
and emergent trends within the international cut flower market. The west European market (the primary focus of Kenyan exports) is given particular attention. Noted also are recent changes in market structure, consumer preferences, and the overall supply and demand situation. Part two is core. It describes and analyses the Kenyan Cut flower supply chain, with particular emphasis on the distribution and product mix of the industry and its production structure targeting Dutch, UKs and German markets.

The interplay of local and international forces in the development of a highly profitable cut flower export-oriented supply chain is well illustrated by Kenya’s experience, which spans several decades. Some illustrations are given in this chapter on how international flows of investment, technology, skilled manpower, and information have been crucial to the development of Kenya’s flower industry. Discussed also are changes in world (specifically European) market requirements, products preferences, and how institutional arrangements have induced changes in the Kenyan supply chain, sometimes on a timely basis and sometimes less so. An attempt is also made to demonstrate that governance in the trade and the increasing sophistication of (European) cut flower market has put pressure on the Kenyan supply chain and raised some (new) major barriers to successful entry into this lucrative business.

3.4.1 Penetrating European markets-The Dutch Connection

One of the other secrets to Kenya’s CF success lies in operations on a counter seasonal basis to the production patterns of Western Europe. The peak season for Kenyan exports are in November-May period, with specific peaks in market demand associated with Valentines Day (February 14th), Easter holidays (March/April), Mothers day (May), and Christmas day (December) and many more international holidays/events. There has been a steady increase in this production pattern over the years. Local and regional supplies to Europe in winter are lower or based on expensive artificial production. Only the bigger producers with artificial heating and lighting systems benefit from the trade in this season. Flowers are generally expensive in winter (Aalsmeer2002)\(^\text{18}\). Kenyan flower exports hit a low in the June-August season due to discrimination against imports at this time into DFAs and the abundance of low

\(^{18}\) information accessed from www.vba.nl
cost supplies within Europe.

The flower industry has been one of the leading industries in the Dutch economy. Since the mid-1970s, the production and distribution of cut flowers have burgeoned. In 1995, Dutch growers produced over 8 billion blooms and the flower auctions collectively traded more than 5.4 billion guilders (about $3.2 billion) in cut flowers and potted plants, contributing over 4 billion guilders annually to the Dutch balance of trade\(^\text{19}\).

The Dutch flower industry consists of about 11,000 growers and nearly 5,000 buyers. Growers are typically family businesses that grow flowers in specialized greenhouses, heated and lit by the country's abundant supply of natural gas to create an ideal climate for growing flowers. Dutch growers face increasing competition for the lucrative European markets from low-cost foreign competitors such as Kenya, Spain, Israel, India, and Colombia. While Dutch growers experience increasing land costs, more environmental regulations and political trends to reduce subsidies for gas prices, the foreign competitors have lower labour costs, fewer environmental regulations and lower trade tariffs. The global diffusion of agricultural technologies and cheaper air transport make international growers more potent competitors.

In response to these economic pressures, and emerging business threats from innovative entrepreneurs\(^\text{20}\), Dutch growers are shifting their product mix to include high value-added flowers that serve year round "impulse" buyers, in contrast to just serving the "occasions" (e.g., Christmas, Valentine's Day, etc.) market. They believe that the future growth of the Dutch flower industry will come, in part, from the impulse market at Aalsmeer\(^\text{21}\).

The main \textit{comparative advantage} of the Dutch flower industry is that "it has always been there". Past investments in knowledge and physical infrastructure has had spin-off advantages

\(^{19}\) Information compiled by Rabobank 1996

\(^{20}\) The Kenyan pioneered (Internet-based) Tele Flower Auctions (TFA) is an emerging threat to the traditional DFA system that demands the physical presence of the buying party/agent.

\(^{21}\) Aalsmeer has become the Wallstreet of the Flower Market.

http://www.nfla.co.uk/directory/20011217184513.html

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to the industry and given the Dutch a superior market position.

The five main DFAs have been (and still are) the main conduits for Kenyan cut flowers. Most Kenyan growers/exporters use DFAs listed below to access final markets. It's important to mention here that Naaldwijk Flower (not in the Table) auction buys from most of the Kenyan growers including the very small producers.

**Table 3**

<table>
<thead>
<tr>
<th>Sale of cut flowers in millions (euros) including imports</th>
<th>Sales 2000</th>
<th>Sales 2001</th>
<th>00/01 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flora Holland flower auction</td>
<td>1,241.7</td>
<td>1,239.1</td>
<td>-0.2</td>
</tr>
<tr>
<td>2. Aalsmeer flower Auction</td>
<td>981.1</td>
<td>977.0</td>
<td>-0.4</td>
</tr>
<tr>
<td>3. ZON Flower Auction</td>
<td>48.3</td>
<td>45.3</td>
<td>-0.6</td>
</tr>
<tr>
<td>4. Oost-Nederland Flower Auction</td>
<td>20.4</td>
<td>20.7</td>
<td>+1.7</td>
</tr>
<tr>
<td>5. Vleuten Flowers Auction</td>
<td>18.3</td>
<td>17.1</td>
<td>-6.6</td>
</tr>
<tr>
<td>Source: Flower Council of Holland 2002</td>
<td>2,309.7</td>
<td>2,299.2</td>
<td>-0.5</td>
</tr>
</tbody>
</table>

In response to these seasonal fluctuations, Kenyan floriculturalists are pursuing alternative marketing arrangements—including direct supplies to European supermarket chains—to beat the odds.

**a) Role of agents**

The growing role of agents in the cut flower supply chain is largely a product of the increasing sophistication of packing requirements. Agents play an important role in transferring flowers from air-transport-based to auction-based packaging. Kenyan exporters that lack local representatives in DFA are dependent on these services. Currently between 5-10 agents distribute Kenyan Cut flowers in the Netherlands, and charge a commission of 20-22% of auction sales (including the auction costs and handling), and a 15-18% direct sales (including handling). Agents have recently changed roles, moving away from simple commodity handling towards providing a wider array of services including consultancy, product and marketing information, and import materials.

These services have allowed Kenyan exporters to achieve higher levels of consistency and
quality, and enhanced their competitiveness in the European market. Agents have adopted a range of ‘new’ competencies: purchasing and consolidating flowers in supplier countries; becoming financially integrated into flower farms; and providing a wide range of marketing information on consumption trends, environmental programs and quality-related aspects of distribution. In addition, the agents are diverting growing volumes of flowers to supermarket chains, Dutch wholesalers, and foreign importers. With such diverse capabilities, agents have become valuable to off-auction clients and a growing threat to DFAs.

Kenyan farm-related agents (EAF and Sher Holland)\(^2\), in addition to independent agents, have given these exporters greater control over production, as well as supply, distribution and sales. The main difference between these farm-based agents is that Oserian focuses on their own auction (TFA) and direct sales, whereas Sher supplies the auctions. Apart from furthering their own goals, these agents are now providing services to other Kenyan and foreign producers as seen earlier. Oserian has developed its own sophisticated network and has established itself as a reliable (360°) seamless supplier of cut flowers with strong synergies with other players in the business as in the figure 5.

\[\text{Figure 5 Oserian Flower Chain: Oserian/EAF/TFA Distribution}\]

\[\begin{array}{c}
\text{Oserian Farms} \\
\text{(Kenya)} \\
\text{Airflo} \\
\text{Freight Forwarding} \\
\text{(owns charters with DAS)} \\
\text{World Flowers UK branch} \\
\text{(super market sales)} \\
\text{EAF} \\
\text{Clearance and handling agent} \\
\text{Other-Auctions/buyers} \\
\text{Tele Flower Auctions} \\
\text{TFA} \\
\text{(Internet based)} \\
\end{array}\]

\[\text{Other Kenyan and East African Suppliers} \\
\text{(40 regular suppliers)}\]

\[\begin{array}{c}
\text{Part of Oserian chain} \\
\text{Communication} \\
\text{Product Flow} \\
\text{Financial Flow} \\
\end{array}\]

\(\text{EAF= East African Flowers- a subsidiary of Oserian Flower Company}\)

\(\text{Source: Jaffee et al}\)

\(\text{22 Subsidiaries of Oserian and Sher Agencies respectively}\)
b) Role of Dutch Wholesalers

Dutch wholesalers comprise the customer base of the auctions. They typically focus on exports and their infrastructure is developed to coordinate product flows, which are pushed into the market. Wholesalers purchase and transport cut flowers on behalf of traditional retailers, supermarket chains and importers. The main four types of wholesalers in the cut flower industry are:

1. Commission agents, which purchase at the auctions on behalf of smaller wholesalers and exporters. They emerged following a policy change at the DFA, which increased the minimum lot size, and as a result limited the number of wholesalers able to purchase at the auction;
2. Exporters, which purchase at the auction based on importers, and specialize in overseas markets such as the Japan and the US;
3. Exporters, which purchase at the auction and provide specific services (e.g. value-added activities) to European supermarkets; and
4. The ‘Flying Dutchman’, which purchase at the auctions and sell directly to traditional retailers (florists) in Germany, France and the UK.

Kenyan exporters involved in direct sales have posed a challenge to Dutch wholesalers and have prompted them to start direct sourcing by participating directly in flower production or by establishing purchasing agencies in Kenya. The nature of this sourcing is as shown below.

### Figure 6 Flower production and marketing flows

![Flow Chart](chart.png)

**Source:** Conceptual model Developed by author based on existing

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One way in which producers connect to the final markets is through specialized buyers, as shown in Box 2. It is seldom the case that producers sell directly to consumers (although there is an expectation that e-commerce may lead to important changes here) Almost always they go through intermediaries buyers, and these determine the extent to which Small producers can upgrade their operations. Through such interactions, small firms get incorporated into the flower VC.

| Box 2 Forms of incorporation into the global Cut flower Economy and Key intermediary agents |
|---|---|
| Forms of incorporation of producers into global markets | Main Actors |
| 1. Arms length relationships describe a world where producers are faceless to each other. They operate in a world of transient and impersonal relationships, much as that described in economic textbooks on perfect competition. The exporters of CF are examples of this kind of incorporation into the Global Economy. | Independent producers and buyers. |
| 2. Network Relationship occur when different producers have complimentary skills which they need to share in order to prosper in the business. The defining aspect of these complimentary skills is that they define a world of cooperation among “equals”, often engaging in technological collaboration (for example in the TFA system that require expertise knowledge on how commerce works. | Lead Firms/Producers in the CF industry gang together to penetrate global markets |
| 3. Quasi-Hierarchical relationships between buyers and producers describes a world in which the two parties are not jointed by ownership, but engage in long-term relationships. One of the parties tends to be dominant-to assume the role of “governor”-and to define who is incorporated in the VC, and what standards they have to meet. | Key firms “govern” global CF production: |
| | • Determining who is included in the global VC’ |
| | • Determining what standards they need to meet: |
| | • Assisting producers to meet these standards; and |
| | • Auditing the performance of producers |
| 4. Hierarchical relationships refer to the incorporation of producers in a vertically integrated production, connected by close bonds of ownership. It describes a VC of head offices and subsidiaries that is a world of FDI. | TNCs produce in vertically integrated Global VCs |

Source: Adapted from Humphrey and Schmitz (2000)

The following major types of buyers can be identified.

*In the consuming country:*

- Multi-outlet retailers
- Single-outlet retailers
- Independent specialized buyers
Large international firms with global networks.

In the producing country (Kenya)

- Local and export agents
- Large producing firms that also acquire flower products from the smaller suppliers.

3.4.2 Direct sales to markets outside Holland

Operations of the supply chain from Kenya through the various distribution channels in Western Europe are the main focus of this section. The first is an overview of the role of agents and the second focuses on the role of wholesalers in the VC highlighting the stages involved in product flow i.e. (farm production-loading flower for exports) for European markets. The European dimension of the supply chain is also discussed with a clear focus on processes involved in routing Kenyan flowers through Dutch Auctions and direct sales to the UK and Germany, Japan and other destinations.

3.4.2 Examples of Direct sales outside the DFAs

a) Germany Markets

Germany was the largest export market for Kenyan cut flower until the 1990s. German dominance was largely attributed to a joint venture that existed between Sulmac and Florimex, Germany’s leading importer throughout the 1970s-1980s. A sophisticated network had been developed by Florimex, routing flowers to markets far and wide throughout Europe the US, and Japan-markets unexploited by Kenya. Recent declines in Germany’s export share is a combination of several factors namely; increased competition from alternative suppliers such as Spain; decrease in production capacity of Sulmac, which previously dominated the German market; the termination of the exclusive contract between Sulmac and Florimex; and diminishing consumer interest in carnations, one of Kenya’s main export flowers.

Approximately 60-70% of Kenyan flowers (in Germany) are controlled by two major importers and distributed to Supermarkets. One of the agents re-exports to supermarket chains in Switzerland. In contrast to the Netherlands, these importers fully control the supply chain and are responsible for transport and logistics. For many Kenyan exporters, the German market
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is still considered attractive than the DFAs because of its absorptive capacity. But the UK market has gained prominence in recent times.

b) Tapping UK Markets
Flower import from Kenya to UK began on a small scale during the 1980s and increase gradually from 500-1,050 tons in 1986 and 1992 respectively. By the year 1997 imports stood at 5,265 tons. Kenyan fresh produce (vegetables, French green beans, baby sweet corn etc) are now very popular products in major UK supermarkets. The UK imported around US $ 88 million worth of fresh produce in 2001- a bulk of it coming from Kenya. M & S, Sainsbury and Tesco all enjoy contracts with major Kenyan cut flower producer/exporters.

Kenyan companies take care to match the exacting standards imposed by the British superstores. UKs share of Kenya’s flower and fresh produce industries has increased over the past few years. The UK currently is the second largest market destination for Kenyan cut flowers after DFA, accounting for 15% of Kenya’s exports (as of 1997). Roses, statice, spray carnations, alstroemeria, standard carnations, and cut foliage are the six products that comprise 88% of total Kenyan exports to the UK. The rapid growth of UK’s cut flower market is a result of the following factors.

a) The transition to quality-oriented, differentiated products;
b) The strength of the British pound-which has encouraged Kenyan exports to the UK;
c) A favorable economic climate which has fueled the consumption rate of cut flowers;
d) The diversification and expansion of flower market varieties with traditional, lower value flowers (chrysanthemums, carnations) loosing market share to more exclusive varieties such as roses and summer flowers; and
e) The growing market power of the UK supermarkets, which supply large volumes of flowers at competitive prices. These low prices have generated competition among British florists.

Distribution of Kenyan cut flowers to the UK is based on direct sales\textsuperscript{22}, which are controlled

\textsuperscript{22} World Flowers, Flamingo UK, Emerald Supplies, Natureflora, Sun Flora, Sun king Flowers, Southern
by a small number of medium/large British importers. Normally, exporter’s ad importers have an exclusive arrangement for trade between the two countries. Importers operate on a commission basis (10-15%) of gross sales and channel flowers to supermarkets on behalf of a few large Kenyan exporters. Flower supply contracts are based on seasonal agreements that specify volumes, composition and retail between UK supermarkets and Kenyan exporters (via importers). A detailed order is sent to the producer and forms the basis for harvesting, processing and shipping schedules daily. The importers job is to ensure a consistent supply of high-quality flowers for their dedicated supermarket customers.

Figure 7 Actors and product flows in UK’s cut flower Supply chain

Source: Steven Jaffee, et al

Lately, the importers job has shifted from a ‘trading’ role towards assisting producers with technical support, logistics and product development. Once the produce clears customs in the

Glasshouse produce (SGP), Florimex and Christel Flora.
UK, the importers are fully responsible for it. They check, repackage and label produce, and create product combinations with flowers from more than one country. Flowers are then transported to distribution centers of supermarket chains, and on to wholesale markets as shown figure above.

Several advantages are accruing from the development of long term relationships between UK importers and Kenyan exporters. These include access to technical and marketing information. UK importer assumes the responsibility for decisions governing product line, sales volume, price, and distribution, as well as market research and promotion. The largest companies in the trade, World flowers of Oserian, and flamingo UK of Homegrown (all Kenyan), have their own air-freight transport, which allows them to ensure continuity and control over the post-harvest process. These fully integrated chains (shown in figure below) allow products to be harvested and be on UK supermarkets shelves within 24 hours. In this chain, importers assume the risk associated with the trade. Nevertheless, they stand to gain in the log run because more returns to the VC are concentrated in the UK.

**Figure 8: The Supply Chain of Direct Exports from Kenya to the UK**

![Diagram of the supply chain](image)

Source: Steven Jaffee, et al

### 3.5 Challenges facing Flower Kenya Flower Growers

An uncertain future faces smallholder farmers in the floricultural industry who must now
content with a host of teething challenges such as European *quality standards*, declining markets for low quality flowers, lack of investment capital and increasing production and marketing costs (e.g. UPOV\(^24\) royalties and high airfreight charges). Overseas markets set the MRL and insisted that fresh horticultural exports be re-adjusted in accordance to their regulations on pesticide Maximum Residue Levels (MRLs) to analytical zero\(^25\). The implication is that there is minimal tolerance of the residue on produce. This new requirement could lead to a ban of most of the fresh produce from suppliers who buy from small producers if action is not taken as a matter of urgency.

Concerns for the environment and for social conditions and welfare of workers at producing and trading companies have become increasingly important with the final consumers. Producers and traders require clarification to prove that their operations are in accordance with the required environmental and social standards. In many countries, ethical buying is the new fashion severely limiting chances of non complying countries.

**Box 3 Investment Incentives:** The KFC, with the support of Britain’s DFID, is embarking on a project to improve the flower production of smallholder flower growers and exporters in Kenya.

This two year project, part of DFID’s Business Partnership Programmes aims to bring the 500 plus small growers up to the standards already put in place by KFC and implemented by the larger growers. The project will (through trainings, audits etc), assist smallholders in meeting the exacting, social, environmental and quality standards that the European market demands and access the benefits of membership in KFC and support provided by large growers and the DFID. According to statistics, smallholder growers account for roughly 10 per cent of the flower production and thus they should not be excluded from the process and the market.

Among the measures to be introduced are more controlled use of chemical inputs, protection of water resources and the general sustainability of the environment in flower growing areas. The project will have a positive impact on the environment through better and more controlled use of chemical inputs, protection of water resources and general sustainability of the environment in flower growing areas. By assisting smallholder growers become more socially, environmentally and commercially aware, the project will help to spread development benefits across the industry as a whole. The project is also aimed towards the goal of poverty alleviation by contributing to the growth of the flower industry in a pro-poor manner.

To meet the stringent environmental and social requirements and remain competitive in the overseas market the horticultural industry in Kenya has taken various steps. The KFC and the

\(^24\) Before Kenya was a signatory to UPOV the main beneficiaries were the big firms which had both the access and the money to pay for plant breeder royalties, fully exploiting the situation.

\(^25\) So far only the large growers have been able to meet the Code of practice thus exposing the small growers to market exclusion, job losses and a decline in incomes.
FPEAK (two key associations in the horticultural industry) have come up with *codes of practice* in horticultural production and trading. These codes of practice are recognised in the international market and it is therefore advisable for all players in the industry to subscribe to them. Membership of KFC relies on growers meeting the KFC Code of Practice standards. In compliance with international standards/requirements for cut flowers, the KFC introduced a Silver and Gold standard of good agricultural practice for its 600 strong growers and members.

Further to the requirements on pesticide residue, the market/consumer(s) continue to demand proper labelling of the overall flower products on the shelf, indicative of the method of production. This means that the aspect of traceability of produce is gaining more importance with time. To cope, individual (small) growers need to improve their co-operation KFC, with each other and with the exporters. This is still a challenge as they lack the capacity to adequately do this.

An informal network in the flower sector has been the source of small holder planting materials. But with Kenya’s ratification of the UPOV Convention, this has changed drastically. Currently, a royalty is paid for each stem sold (equivalent to 10% of the auction price for alstroemeria), and Auction authorities (in Holland) often seize flower that flout the royalty payment rules. As a result of this, Kenyan flower exporters are afraid of sourcing flowers covered by UPOV from small farmers on suspicion that the planting materials have been multiplied illegally. One exporting Company (Homegrown) ensures that small farmer gets the right planting material and certified seed. To survive the odds, small flower firms have located in proximity to larger firms to benefit from agglomeration economies.

All these call for a heavy capital outlay that is way out of the reach of would be small farmers/producers-raising the cost of entry into the business. In the next chapter, I will look at how the emerging concept of Flower Business Park offers hope for small producers.
4.0 CHAPTER 4

Reflections, Prospects, Strategies, Some Recommendations and Conclusion

4.1 Reflections.

My interest in flowers prompted me to undertake this study. I have particularly taken a keen interest in how small and big flower firms alike get inserted into the VCs and the challenges they face in a globalizing world. More Important, I have always wanted to study the importance of such an insertion for the Kenyan economy that is largely (still agro-based) and thus dependant on key sectors like horticulture-under which floriculture falls. This study has been an attempt to explore VC connections for the Kenyan flower sector and has tried to show the SWOT of the players in this dynamic industry and some of the multi-faceted challenges ahead. This chapter briefly summarizes the study, and also looks at the problems/constraints/challenges currently facing Kenyan flower firms, and the prospects and strategies available to them. But first I will give a brief summary.

4.2 Summary

The international market environment for cut flowers is now considered more challenging than it was a decade ago. While the market was previously supply-driven, it is now driven by demand and increasingly specific consumer preferences. Profit margins of the main market players are being pushed down by fluctuating market prices and with the recent entry of many African and other flower exporters. As a result, the supply is outstripping demand for the common flower varieties like the rose. This calls for improved efficiencies at farm level and in supply chain management. Further, sensitized consumers and distributors now demand flowers grown according to increasingly strict environmental standards consequently compelling lead Kenyan growers and exporters to both raise the quality of flowers and reduce costs in addition to other strategies that will be discussed shortly, if they have to both maintain their position and that of Kenya in the cut flower VC.

The dramatic and steady growth of the Kenyan flower industry has positioned the country as one of the leading external sources of fresh cut flower supply to Western Europe (Figure 9)
The Kenyan experience illustrates the very dynamic nature of the industry and the ever changing challenges to maintain international competitiveness. Kenya possesses a number of basic factors that include: a favorable climate (tropical and temperate), intra-annual consistency in daylight hours, and cheap and reasonably skilled labor. Translating these factors into a competitive industry initially required an injection of international technical and marketing floricultural expertise. To expand volumes and lower risks, the industry then needed to attain increased control over critical distribution points and did so through investments and contractual arrangements.

The cut flower industry’s development in Kenya has entailed substantial foreign investment and a creative mixture of foreign technology/expertise and local skills, applications and manpower. Private sector initiative has seen the emergence and growth of this sector. The Kenya government role in the growth of the sector has been mildly positive-wavering over the
years between facilitation and constraint. Kenya growers and exporters have struggled to keep pace with market trends and the challenging technologies and good practice demanded by the industry. In recent years some segments of the industry have developed a competitive edge by forging intensive relationships with overseas customers and have exerted a greater degree of control over the cut flower supply chain through the integration of freight forwarding, clearance, and importing activities.

In addition to their relatively strong presence in the DFAs, these more aggressive producer/exporters have diversified their marketing outlets, providing year-round products to European supermarkets chains and direct sales to wholesalers and even some limited sales to the regions outside Europe (Japan and East Asia). Lead firms in the flower sector (mainly exporters) have in essence, acquired broad range of functions and capabilities and secured a valuable position in the international cut flower VC. The weaker firms, have remained highly dependant upon expensive external advice, and continue to sell their flowers either through agents or simply on a spot basis through DFAs. Their inability to secure access to up-to-date and reliable information, or, develop intensive supply chain relationships has rendered most of their produce as second grade, making it hard to penetrate the more lucrative markets.

4.3 Prospects and Constraints for Kenyan CF producers
Consumers nowadays demand greater variety. There are now over 125 varieties of cut flower grown commercially world-wide with additional varieties added to the market each year. To cope with such developments and in a quest to meet consumer demands, Kenyan growers cannot afford to continue producing only 40 varieties as sources of flowers have proliferated. Proliferation of sources of supply means that greater emphasis is being placed, by the market, on quality, freshness, packaging and presentation-areas that most Kenyan growers still have a weakness. Market saturation as a result of entry of new suppliers is a mitigating factor for Kenyan cut flower prospects. Table 3 shows declining prices for some of the flower varieties that most Kenyan firms produce and/or heavily rely on.
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| Table 3 Import prices per piece for a selection of flower products, 1997-1999 (in US $) |
|-----------------|-----------------|-----------------|
|                 | 1997 | 1998 | 1999 |
| Rosa            | 0.16 | 0.15 | 0.13 |
| Dianthus        | 0.12 | 0.13 | 0.09 |
| Gypsophila      | 0.26 | 0.22 | 0.22 |
| Hyperricum      | 0.22 | 0.23 | 0.19 |
| Solidago        | 0.17 | 0.16 | 0.13 |
| Limonium        | 0.22 | 0.23 | 0.18 |
| Chamaeleucium   | 0.16 | 0.15 | 0.11 |
| Helianthus      | 0.28 | 0.26 | 0.22 |
| Aster           | 0.22 | 0.19 | 0.17 |
| Eryngium        | 0.3  | 0.34 | 0.27 |
| Ruscus          | 0.08 | 0.08 | 0.07 |
| Narcissus       | 0.05 | 0.05 | 0.04 |

Source: The Federation of Netherlands Flower Auctions (VBN)

This is a worrying trend that only paves way for more challenging market conditions for the less experienced flower firms that lack the adequate resources to develop coping mechanisms. Among those heavily affected by such market trends are: Mweiga Blooms; Waridi; Valentine Growers, Mosi Ltd; Redlands Roses Sophia Roses; Gatoka Ltd; Penta Flowers; Zena Rose Kijabe Ltd and Enkasiti. These firms only specialize in rose production (Please to Annex I) Oserian, Sher Agencies and Homegrown are also affected but have a diversified export basket and coping mechanisms discussed in detail earlier. The good news is that: Oserian; Sher Agencies; Sulmac; Homegrown; Carzan; Finlay Flowers Tropiflora; Stoni-Athi and Sian Agriflora produce most of the top 10 cut flowers in DFA and those that are in high demand globally. There's also evidence that the trend towards greater varieties of flowers is resulting in an increased demand for the less traditional varieties of both temperate and tropical flowers. These are opportunities for Kenyan producers who can supply both types of flowers year-round.

The main constraint to expanded cut flower export development is caused by the economic environment in Kenya. Kenyan economic and trade policies are not yet fully supportive of
private sector initiatives for export development. Inadequacy of appropriate infrastructure (cold storage facilities, communication networks, road and air transport facilities etc), has a heavy bearing on the export competitiveness of Kenyan cut flower products. Better organization in the cut flower and foliage sector and networking through production and trade associations in order to facilitate and reinforce the implementation of KFCs recently developed codes of conduct defining production methods and institutionalizing and strengthening the quality approach to cut flower exports.

It is common knowledge that cut flowers are highly perishable. To fetch higher prices on the markets, the freshness at which they reach markets is critical. Further investments into physical infrastructure will help move the products rapidly to export destinations. Most Kenyan flower firms still have major problems in this regard with respect to:

a) Lack of cold chain transport and storage facilities at the airports
b) Limited airfreight capacity
c) Poor roads, especially from the flower farms to the major towns
d) High cost of transport
e) Limited air routes, which is one of the key reasons why Kenyan Exporters have failed to penetrate US markets (refer to figure Annex 2)

4.4 Maintaining a competitive edge:

Based on the Studies I have done on this topic, the source of power in the VC seems to lie in possessing resources and capabilities that are not easily substitutable. In the short run, established firms can enjoy the ‘protection’ from the competences and relationships they have forged over the years. These include: sunk investments in specialized facilities; knowledge of production and post harvest processed; and relationships, based on trust and reciprocity with selected overseas customers. Their vulnerability to be substituted within the cut flower VC, either from within Europe or from another external supply source is reduced by these capabilities.

To retain their global competitiveness in a highly dynamic trade; Kenyan flower producers and/or investors have a few options available to them either:
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

1. Invest in more greenhouse facilities for either large budded or sweetheart roses that are now in very high demand. Small producers can save all above costs and headaches by joining the Flower business Park-a very recent concept in state of the art cut flower farming in Kenya.

- Introduce intermediate roses in high altitude production locations like Nyeri, Meru, Nyahururu and the Aberdares with rich volcanic soils.
- Offer value-added production and supply chain management to supermarket chains in Europe through either OBNP or OEVP and/or
- Meet the required global standards for flowers (quality, environmental safety etc) through closer collaboration with KFC, FPEAK and take advantage of such programmes as the DFID sponsored capacity building project discussed earlier.

Failure to realize one or more of the above mentioned options will definitely give Kenyan competitors in the cut flower industry-especially those also producing high quality roses-an upper hand. Roses stand out as the core of Kenyan flower industry. But overdependence on them can be catastrophic for respective firms and the Kenyan economy as a whole. Niche markets exist for ‘new’ flower varieties and are already being exploited by some growers. These include lisianthus, eryngium, carthamus, solidago, a variety of summer flowers, and types of cut foliage that fetch a good price on the market.

Their long term security, however, depends upon positioning oneself strategically in the VC, reliability, consistent quality, and innovation. They need to pay attention to the particular areas summarized in the figure 10 that will help safeguard the careers of all their employees. Cut flower product differentiation may involve more skill in production, post-harvest care, greater capital investment and/or greater innovation capabilities and logistics.
The revolutionary and powerful role of IT in the flower industry (e.g., Oserian's TFAs) is now making it possible for members of the cut flower VC to be linked and enables timely logistics and product traceability. Attractive as these requirements/demands may look, they only serve put pressure on margins and generate continued competitiveness in the industry and potentially steep barriers to entry.

4.5 Proposed Strategies for Kenyan Producers/Exporters

As mentioned earlier, securing a strong competitive position within the dynamic cut flower market and achieving growth simultaneously presents both major opportunities and challenges for Kenyan flower firms. The huge size of the total market (in the excess of US $110 million), growing demand for flowers year round and the fragmentation of the market in terms of varieties sold offer the major opportunities. Global consumption is increasing rapidly (see Annex 5). And though total imports may be growing slowly, a shift is occurring in the global origin of imports as presented in figure 12. It is visible that the Netherlands leads the pack of developed countries in importing from LDCs. So far America markets are yet to be penetrated-offering the greatest potential.
Figure 11-How the Smaller Kenyan Producers can connect to Final Markets

Developed by author from existing literature (2002)

Figure 12

Market Share of Major Importers

Source: Flower Council of Holland

Kenya has proved its competitiveness in the market by the very rapid rate of growth of exports
that achieved between 1995 and 2002.

As the market becomes more demanding however, the need to overcome the constraints listed above is more pressing. Kenya is yet to put forward concrete plans on how these constraints are to be addressed. Further as a sector, floriculture has failed to attract the attention of senior policy makers who have often been ignorant of its vast potential. To fully realize the potential of this sector, a starting point must be the development of solid Kenyan export strategy, backed by strong policies and concrete plans of action that gives leadership role to the private sector, but with the public sector playing an important enabling role. These strategies must be set out priorities in terms of geographic and product markets and the way that Kenya’s latent comparative advantage can be converted into actual competitive advantage for flower exporters. Whatever strategies reached should address the following markets opportunities.

a) Addressing new or undeveloped markets. Clearly, the US is a market worthy of far greater attention. In addition, there are important markets in Japan, France, Norway, Korea and Singapore that have yet to be targeted by the LDCs (see Annex 1).

b) Product diversification in temperate varieties coupled with expansion of exports of subtropical and tropical flowers in response to the trend towards greater varieties.

c) Reducing seasonality by driving home latent comparative advantage through improving infrastructure and thus reducing transport costs.

d) Increasing market penetration in existing markets by improved product quality, better packaging and stronger alliances with retailers.

The work of KFC can be extended to include:

1 Providing crucial up-to-date market information and promoting flowers for export in leading export markets;

2 Encouraging adoption of quality management systems by the smaller flower firms through further cooperation with international development agencies like DFID;

3 Increasing the production of new, high-value flowers with year round supply; and

4 Providing technical information to assist small flower growers increase production of quality flowers.
Quality Assurance (QA) systems for Kenyan cut flowers can be used to help supply quality flowers to the market and to promote sales. More attention should be given to “best bet” varieties in demand from exporters. The “best bet” varieties include new flowers, improved selections and plants with new flowering times, such as late summer flowers that can take advantage of such markets as the Chinese new year markets. Ongoing research at KARI can be geared to such emerging and highly profitable varieties.

4.6 Suggested Policies Interventions and Concluding Remark

For any of the above to succeed, a clear change in the policy environment in Kenya is required. Policy makers must understand the potential offered by cut flowers as a lucrative export item. In recognition of the potential, they need to:

- Channel resources into the improvement of physical and technological (internet) infrastructure for exporters.
- Improve air links and increase capacity to capture the ‘new’ markets mentioned earlier.
- Reduce air transport costs by promoting competition nationally, regionally and internationally.
- Strengthen the already established HORTEC Agriflor trade promotion and export facilitation services and the capacity of ECK.
- Improve and support R&D activities geared to CF variety improvements
- Further improve the investment climate for both local and foreign investors.
- Continually improve human resources in the flower sector through vocational training.
- Strengthen trade associations (like KFC and HCDA) and enable them to undertake market promotion, quality improvement and cluster development programmes

There’s still room for more research in this area of Kenyan Cut Flower VCs, but in conclusion, it is my opinion that: strategic thinking, expanding the orientation of export activities to new markets, and networking/synergies is required in response to the above mentioned challenges.
Kenyan cut flower /exporters cannot therefore afford to relax. They must increase their flexibility and reliability, keep abreast of market and customer requirements; technological and market trends, and expand their product portfolios. In essence, only those Kenyan producers/exporters that offer products and/or services that are difficult to find elsewhere will be in a better position to and reap the benefits offered by globalization in the CF industry. They will be better placed to take a strategic view of how to position them within the cut flower VC will remain competitive in this highly lucrative industry. Without the help of big firms like Homegrown, the long term viability of smallholder farmers in this business seems precarious. If this conclusion is correct, then many of Kenya’s smaller and less experienced growers and exporters will be vulnerable to exclusion and face an uncertain future in this promising industry that has steeped barriers to entry.
Annex 1

Table: Top Twenty Cut Flower Exporters In Kenya by Export Volume

<table>
<thead>
<tr>
<th>Exporter</th>
<th>Geographic Location</th>
<th>Range of Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oserian</td>
<td>Naivasha</td>
<td>Rose, spray carnations, hypericum, gypsophilla, chrysanthemum, statice, alstroemeria</td>
</tr>
<tr>
<td>Sher Agencies Ltd.</td>
<td>Naivasha</td>
<td>Rose, alstroemeria, arabicum, cardhamus, eryngium, papyrus</td>
</tr>
<tr>
<td>Homegrown Ltd.</td>
<td>Naivasha Timau</td>
<td>Rose, lisianthus, gypsophilla, statice, spray carnations, asters, solidago, lilics, freesia, fillers.</td>
</tr>
<tr>
<td>Sulmac</td>
<td>Naivasha Kibubuti (Kiambu)</td>
<td>Rose, hyperic, spray &amp; standard carnations, statice, gypsophilla, Alstroemaria.</td>
</tr>
<tr>
<td>Carzan Culture &amp; Lab Ltd.</td>
<td>Limuru (Kiambu)</td>
<td>Delphinium, eryngium, moluecella, ornithogalum, roses, alstroemeria, bupleurum, statice, agapanthus, arabicum, solidago, lisianthus</td>
</tr>
<tr>
<td>Enkasiti flowers</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
<tr>
<td>Finlay Flowers</td>
<td>Kericho</td>
<td>Alstroameria. Std &amp; Spray carnations, roses, gypsophilla, lisianthus</td>
</tr>
<tr>
<td>Kijabe Ltd.</td>
<td>Naivasha*</td>
<td>Rose</td>
</tr>
<tr>
<td>Tropiflora</td>
<td>Limuru (Kiambu)</td>
<td>Alstroameria, solidago, ornithogalum, papyrus, arabicum, spray carnation</td>
</tr>
<tr>
<td>Stoni-Athi Ltd.</td>
<td>Athi River</td>
<td>Rose, asters. Chrysanthemum cuttings, gypsophilla, carnations</td>
</tr>
<tr>
<td>Sian Agriflora ltd.</td>
<td>Nairobi, Njoro, Eldoret</td>
<td>Rose, zantedeschia, assorted summer flowers</td>
</tr>
<tr>
<td>Mweiga blooms</td>
<td>Mweiga*</td>
<td>Rose</td>
</tr>
<tr>
<td>Waridi Ltd.</td>
<td>Athi River*</td>
<td>Rose</td>
</tr>
<tr>
<td>Valentine growers</td>
<td>Kiambu*</td>
<td>Rose</td>
</tr>
<tr>
<td>Mosi Ltd.</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
<tr>
<td>Redlands Roses</td>
<td>Ruiru*</td>
<td>Rose</td>
</tr>
<tr>
<td>Sophia Roses</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
<tr>
<td>Gatoka Ltd</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
<tr>
<td>Penta Flowers</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
<tr>
<td>Zena Roses</td>
<td>Thika*</td>
<td>Rose</td>
</tr>
</tbody>
</table>
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

- Firms specializing in rose production. They are very vulnerable to price fluctuations.

Annex 2

Exporting Countries and Major LDCs supplying to the Major Importers

<table>
<thead>
<tr>
<th>Importer</th>
<th>Major exporting countries</th>
<th>Import trend in value between 95-99% pa</th>
<th>Importer</th>
<th>Major exporting countries</th>
<th>Import trend in value between 95-99% pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Netherlands</td>
<td>-8</td>
<td>Netherlands</td>
<td>Kenya</td>
<td>10</td>
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<tr>
<td></td>
<td>Italy</td>
<td>-14</td>
<td></td>
<td>Israel</td>
<td>-2</td>
</tr>
<tr>
<td></td>
<td>Ecuador</td>
<td>24</td>
<td></td>
<td>Zimbabwe</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Kenya</td>
<td>-12</td>
<td></td>
<td>Spain</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Israel</td>
<td>-16</td>
<td></td>
<td>Ecuador</td>
<td>-40</td>
</tr>
<tr>
<td></td>
<td>LDCs</td>
<td></td>
<td></td>
<td>LDCs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tanzania</td>
<td></td>
<td></td>
<td>Zambia</td>
<td>33</td>
</tr>
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<td></td>
<td>Zambia</td>
<td>11</td>
<td></td>
<td>Tanzania</td>
<td>22</td>
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<tr>
<td></td>
<td>Uganda</td>
<td>-3-3</td>
<td></td>
<td>Uganda</td>
<td>24</td>
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<td></td>
<td>Ethiopia</td>
<td>1</td>
<td></td>
<td>Malawi</td>
<td>1</td>
</tr>
<tr>
<td>USA</td>
<td>Ecuador</td>
<td>18</td>
<td>Japan</td>
<td>Netherlands</td>
<td>-19</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>2</td>
<td></td>
<td>Thailand</td>
<td>-9</td>
</tr>
<tr>
<td></td>
<td>Costa Rica</td>
<td>7</td>
<td></td>
<td>New Zealand South</td>
<td>-12</td>
</tr>
<tr>
<td></td>
<td>Mexico</td>
<td>0</td>
<td></td>
<td>Korea</td>
<td>60</td>
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<tr>
<td></td>
<td>Canada</td>
<td>22</td>
<td></td>
<td>Taiwan</td>
<td>..</td>
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<td></td>
<td>LDCs</td>
<td></td>
<td></td>
<td>LDCs</td>
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<tr>
<td></td>
<td>None**</td>
<td>..</td>
<td>Norway</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Israel</td>
<td>-18</td>
</tr>
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<td></td>
<td></td>
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<td>Colombia</td>
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</tr>
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<td></td>
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<td></td>
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<td>Morocco</td>
<td>-16</td>
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<td>Italy</td>
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<td>LDCs</td>
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<td>Uganda</td>
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<tr>
<td>United Kingdom</td>
<td>Kenya</td>
<td>35</td>
<td>Norway</td>
<td>Netherlands</td>
<td>1</td>
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<td></td>
<td>Netherlands</td>
<td>16</td>
<td></td>
<td>Israel</td>
<td>-18</td>
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<td></td>
<td>Colombia</td>
<td>3</td>
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<td>Colombia</td>
<td>-11</td>
</tr>
<tr>
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<td>Spain</td>
<td>15</td>
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<td>Morocco</td>
<td>-16</td>
</tr>
<tr>
<td></td>
<td>Turkey</td>
<td>-4</td>
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<td>Italy</td>
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<td>LDCs</td>
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<td>Zambia</td>
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<td>212</td>
</tr>
<tr>
<td>France</td>
<td>Netherlands</td>
<td>4</td>
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<td></td>
<td></td>
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</tbody>
</table>
Annex 3

SWOT of Kenyan and Dutch flower-growing Sectors

A-The Dutch SWOT.

<table>
<thead>
<tr>
<th></th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>favorable situation with respect to Europe</td>
<td></td>
<td>Poor land resources compared to Kenya</td>
</tr>
<tr>
<td></td>
<td>low transport costs</td>
<td>cultivation in heated greenhouses essential</td>
<td>Kenya has both tropical and temperate climates</td>
</tr>
<tr>
<td>Climate</td>
<td>mild and steady climate</td>
<td></td>
<td>More costs incurred in winter than average</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>profits.</td>
</tr>
<tr>
<td>Raw materials</td>
<td>abundant cheap gas</td>
<td>strong dependence on non-renewable energy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>sources expensive land and scarce irrigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>water; requirements for this are rising</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>because of substrate cultivation and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>pesticide emissions to the soil, air and water.</td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>stable labor costs high productivity</td>
<td>high labor costs - 16 Euro /hour</td>
<td>This is Kenya’s strength but times are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>workers scarce labor management not professional</td>
<td>changing. More demands for better pay</td>
</tr>
<tr>
<td>Capital</td>
<td>cheap capital (9.8 per cent interest) in</td>
<td></td>
<td>Good for the businesses. Finance a major</td>
</tr>
<tr>
<td></td>
<td>principle in unlimited supply through banks</td>
<td></td>
<td>setback to Kenya growers.</td>
</tr>
<tr>
<td></td>
<td>which know the business</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low inflation (3 %)</td>
<td></td>
<td>Apart from Aalsmeer that is located at</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Schipol</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>well-developed roadway network and air travel</td>
<td>hold-ups at auctions not located on the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>auctions developing teleprocessing networks</td>
<td>motorway</td>
<td></td>
</tr>
<tr>
<td></td>
<td>permitting fast communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge infrastructure</td>
<td>extensive courses and study club network; open knowledge structure; sector has money for knowledge; information spreads rapidly; much research, from fundamental to practice-oriented good quality training courses at various levels</td>
<td>little marketing knowledge; information from market slow to penetrate to producers; shortage of highly trained personnel</td>
<td>The Dutch excel in offering consultancy in this field. They have been around for long and have a wealth of knowledge on quality flower growing.</td>
</tr>
</tbody>
</table>
Annex 3 continued

B: Kenyan SWOT.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>favorable situation with respect to proximity to Europe</td>
<td>An added advantage for Kenya. Its strategic position in the horn of Africa has brought many benefits.</td>
</tr>
<tr>
<td>Climate</td>
<td>mild and steady climate</td>
<td>cultivation in heated greenhouses still expensive</td>
</tr>
<tr>
<td>Raw materials</td>
<td>abundant land and fertile volcanic soils</td>
<td>strong dependence on expensive farm inputs. Naivasha is a relatively dry location yet has the heaviest concentration of flower farms. are rising because of substrate cultivation fertilizer and pesticide emissions to the soil, air and water</td>
</tr>
<tr>
<td>Labor</td>
<td>Abundant (cheap) labor high productivity</td>
<td>Workers poorly paid. Many non professional</td>
</tr>
<tr>
<td>Capital</td>
<td>Expensive investment capital. Banks give very high interest rates, high inflation (15 %)</td>
<td>Banks in Kenya do not deal with prospective farmers but established businessmen</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Fairly developed to regional standards.</td>
<td>Still not adequate to meet current rate of growth. Cold storage facilities monopolized by few firms</td>
</tr>
<tr>
<td>Knowledge infrastructure</td>
<td>extensive courses and study on horticulture available open knowledge structure; information spreads rapidly much research, from fundamental to practice-oriented good quality training courses at various levels</td>
<td>Knowledge centers concentrated in a few zones, little marketing knowledge; information from market slow to penetrate to producers shortage of highly trained personnel</td>
</tr>
</tbody>
</table>

Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

Annex 4

**Per capita consumption (2000)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Consumption (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>43.2</td>
</tr>
<tr>
<td>China</td>
<td>16.6</td>
</tr>
<tr>
<td>Denmark</td>
<td>39.5</td>
</tr>
<tr>
<td>Germany</td>
<td>47.2</td>
</tr>
<tr>
<td>Finland</td>
<td>36.3</td>
</tr>
<tr>
<td>France</td>
<td>52.7</td>
</tr>
<tr>
<td>Greece</td>
<td>14.5</td>
</tr>
<tr>
<td>Hungary</td>
<td>10.0</td>
</tr>
<tr>
<td>Ireland</td>
<td>25.9</td>
</tr>
<tr>
<td>Italy</td>
<td>31.1</td>
</tr>
<tr>
<td>Japan</td>
<td>37.2</td>
</tr>
<tr>
<td>Croatia</td>
<td>3.9</td>
</tr>
<tr>
<td>Holland</td>
<td>51.3</td>
</tr>
<tr>
<td>Norway</td>
<td>56.7</td>
</tr>
<tr>
<td>Austria</td>
<td>43.6</td>
</tr>
<tr>
<td>Poland</td>
<td>7.3</td>
</tr>
<tr>
<td>Portugal</td>
<td>25.9</td>
</tr>
<tr>
<td>Russia</td>
<td>15.9</td>
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<td>Slovenia</td>
<td>29.1</td>
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<td>Slovak</td>
<td>6.4</td>
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<td>Spain</td>
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</tr>
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<td>Czech Rep.</td>
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<tr>
<td>Great Britain</td>
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<td>United States</td>
<td>59.4</td>
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<tr>
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<td>36.5</td>
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<tr>
<td>Switzerland</td>
<td>41.3</td>
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It's not very visible but Switzerland currently has the highest consumption of flowers in the world

Source: Flower Council Of Holland-information pamphlet 2002
Annex 5

Types of governance and upgrading

<table>
<thead>
<tr>
<th>Governance</th>
<th>Cut Flower Cluster(s)</th>
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<tbody>
<tr>
<td></td>
<td>Horizontal. Close inter-firm co-operation and active private and public institutions.</td>
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<tr>
<td>Relations with the external world</td>
<td>Arm's length market transactions</td>
</tr>
<tr>
<td>Upgrading</td>
<td>Incremental upgrading (learning by doing) and diffusion of innovations within the cluster. For discontinuous upgrading, local innovation centers play an important role.</td>
</tr>
<tr>
<td>Key competitive challenge</td>
<td>Promoting collective efficiency through interactions within the cluster.</td>
</tr>
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</table>

Governance and Upgrading: clusters Vs value chains

<table>
<thead>
<tr>
<th>Governance</th>
<th>Horizontal. Close inter-firm co-operation and active private and public institutions</th>
<th>Vertical. Strong governance within the chain.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relations with the external world</td>
<td>Arm's length market transactions.</td>
<td>International trade increasingly managed through inter-firm networks.</td>
</tr>
<tr>
<td>Upgrading</td>
<td>Incremental upgrading (learning by doing) and diffusion of innovations within the cluster. For discontinuous upgrading, local innovation centers play an important role.</td>
<td>Incremental upgrading made possible through learning by doing within the chain. Discontinuous upgrading made possible by entry into more complex value chains.</td>
</tr>
<tr>
<td>Key competitive challenge</td>
<td>Promoting collective efficiency through interactions within the cluster.</td>
<td>Gaining access to new chains and developing linkages with major customers.</td>
</tr>
</tbody>
</table>

Determinants of governance in value chains

<table>
<thead>
<tr>
<th>Chain Governance</th>
<th>Product definition and risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm's length market relations</td>
<td>Product is standard - defined without reference to particular customers. Risks to buyer are low. Either requirements are easy to meet, or supplier has clear capability to meet them.</td>
</tr>
<tr>
<td>Network</td>
<td>Co-operation between more or less 'equals'. Supplier and buyer combine complementary competences. Risk to the buyer minimized by the supplier's competence</td>
</tr>
<tr>
<td>Quasi-hierarchy</td>
<td>Buyer defines the product. Risks to buyer from suppliers' performance failures, and there are some doubts about the competence of the supplier. Buyers invest in</td>
</tr>
</tbody>
</table>
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

specific suppliers and seek to tie them to their chain.


Annex 6

Key Organizations in Kenyan Horticultural Industry

| Export Promotion Council Anniversary |
| Towers 18th & 16th floors University Way |
| PO Box 40247 Nairobi Tel: 00254 228334 Fax: 00 254 2 218013 Email: chiefexc@epc.or.ke Website: www.epc.or.ke |

| Fresh Producer Exporters Association of Kenya (Flowers, Fruits & Vegetables) |
| Studio House Karhold Road PO Box 40312 Nairobi Tel: 00 254 2 710977/71198/71210 Fax: 00 254 2 729485 Email: fpeask@form-net.com |

| Horticultural Crops Development Authority PO Box 42601 Nairobi Tel: 00 254 2 337381/2/3 Fax: 00 254 223836 Email: ekado@swiftkenya.com |

| Kenya Flower council PO Box 24856 Nairobi Tel/Fax: 00 254 2 832381/2 Email: kfc@kfc@online.co.ke Website: www.kenyaflowers.co.ke |

| The Kenya Flower Council Europe Office: 36 Buckingham Palace Road |
| London SW1W 0RE Tel: 00 44 (0) 20 7928 5961 Fax: 00 44 (0) 20 7630 9760 email: info@raitofflor.m.uk |

<p>| KFC Associate Members |</p>
<table>
<thead>
<tr>
<th>Associate Member</th>
<th>Contact Name</th>
<th>Address</th>
<th>Tel</th>
<th>Fax/E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aalsmeer Flower Auction BV (VBA)</td>
<td>Mr. J Straver</td>
<td>Postbus 1000 1430 BA Aalsmeer Netherlands</td>
<td>(41) 816798</td>
<td><a href="mailto:Jan.straver@vba.nl">Jan.straver@vba.nl</a></td>
</tr>
<tr>
<td>Agrotropic AG</td>
<td>Mr. B Burgisser</td>
<td>Meenbreitenstrasse 3 CH-8153 Rumlung Switzerland</td>
<td>(41) 818787172 <a href="mailto:flowers@agrotropic.ch">flowers@agrotropic.ch</a></td>
<td></td>
</tr>
<tr>
<td>KN Azink Ltd</td>
<td>Mr. M Hechtle</td>
<td>P.O. Box 69779 00400 Nairobi Kenya</td>
<td>(02) 823890</td>
<td>(02) 823881 <a href="mailto:info@azink.co.ke">info@azink.co.ke</a></td>
</tr>
<tr>
<td>East African Flowers BV (TFA)</td>
<td>Ms. M Meas</td>
<td>Noodemmerweg 102B 1187 Amsterdam Netherlands</td>
<td>(39) 20 656977</td>
<td><a href="mailto:ranser@eaf.nl">ranser@eaf.nl</a></td>
</tr>
<tr>
<td>Floraplex</td>
<td>Mr. N van Beek</td>
<td>Postbox 1200 1430 BG Aalsmeer Netherlands</td>
<td>(31) 297361085</td>
<td>(31) 297361079 <a href="mailto:info@fleurgarant.nl">info@fleurgarant.nl</a></td>
</tr>
<tr>
<td>Marks &amp; Spencer PLC</td>
<td>Dr. S Pearson</td>
<td>Michael House Baker Street London W1A 1DN</td>
<td>(44) 20 79354422</td>
<td><a href="mailto:simon.pearson@marks-and-spencer.com">simon.pearson@marks-and-spencer.com</a></td>
</tr>
<tr>
<td>Omniflora BlumenCentre GmbH</td>
<td>Mr. K Voss</td>
<td>Postlisch 1628 63236 Neu-isenburg Germany</td>
<td>(49) 610271150</td>
<td><a href="mailto:omni@omniflora.com">omni@omniflora.com</a></td>
</tr>
<tr>
<td>Sainsbury's Supermarket Ltd</td>
<td>Ms. J Healing</td>
<td>Stanford House Stanford Street Kibish, UK</td>
<td>(44) 2076956530</td>
<td><a href="mailto:jess@sliberry-sainsbury.com">jess@sliberry-sainsbury.com</a></td>
</tr>
<tr>
<td>Tesco PLC Ltd</td>
<td>Mr. D May</td>
<td>Tesco House Delamere Road Cheshunt, Herts, UK</td>
<td>(44) 1992644993</td>
<td>(44) 1992644993</td>
</tr>
<tr>
<td>World Flowers Ltd</td>
<td>Mr. P Adams</td>
<td>North Wobourough Hoof+ Hatins RG 21 TA, UK</td>
<td>(44) 125670410</td>
<td><a href="mailto:worldflowers@xlsx.nclp.ex.co.uk">worldflowers@xlsx.nclp.ex.co.uk</a></td>
</tr>
<tr>
<td>Van Beek Bloemmen BV (VBB)</td>
<td>Mr. N van Beek</td>
<td>P.O. Box 1435 1430 BA Aalsmeer Holland</td>
<td>(30) 174632817</td>
<td><a href="mailto:nils@fleurgarant.nl">nils@fleurgarant.nl</a></td>
</tr>
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</table>

Source: KFC Home page. Such contracts are very useful for Kenyan Flower Entrepreneurs.
Annex 7

Normal KFC Members

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Name</th>
<th>Address</th>
<th>Telephone</th>
<th>Fax/E-mail</th>
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</thead>
<tbody>
<tr>
<td>Alora Flowers Ltd</td>
<td>Mr. Tony Ketter</td>
<td>P.O. Box 52946, Nairobi</td>
<td>(02) 219472</td>
<td>(02) 217770</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(02) 218444</td>
<td><a href="mailto:ketter@africaonline.co.ek">ketter@africaonline.co.ek</a></td>
</tr>
<tr>
<td>Bevan Roses</td>
<td>Mrs. B Mboche</td>
<td>P.O. Box 46037, Nairobi</td>
<td>(02) 724312</td>
<td>(02) 716768</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:bmbocche@kikuyutes.com">bmbocche@kikuyutes.com</a></td>
</tr>
<tr>
<td>Beverly Flowers Ltd</td>
<td>Mr. M Kabuyah</td>
<td>P.O. Box 53836, Nairobi</td>
<td>(02) 852186</td>
<td>(02) 224504</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:beverly@spacenetonline.com">beverly@spacenetonline.com</a></td>
</tr>
<tr>
<td>Carzan Cultures Ltd</td>
<td>Mr. Z Manji</td>
<td>P.O. Box 1801, Naivasha</td>
<td>(0311) 21222</td>
<td>(0311) 21632</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:Marie@carrankenya.com">Marie@carrankenya.com</a></td>
</tr>
<tr>
<td>Celinico Flowers Ltd</td>
<td>Mr. C Shaw</td>
<td>P.O. Box 167, Village Market,</td>
<td>(0154) 72170</td>
<td>(0154) 72075</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nairobi</td>
<td></td>
<td><a href="mailto:cellnico@mlenet.co.ke">cellnico@mlenet.co.ke</a></td>
</tr>
<tr>
<td>Charm Flowers Ltd</td>
<td>Mr. A Patel</td>
<td>P.O. Box 42417, Nairobi</td>
<td>(02) 222243</td>
<td>(02) 442850</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(02) 337676</td>
<td><a href="mailto:aski@net2000ke.com">aski@net2000ke.com</a></td>
</tr>
<tr>
<td>Enkesiti Flower Growers Ltd</td>
<td>Mr. S CHERLYAN</td>
<td>P.O. Box 50315, Nairobi</td>
<td>(0151) 44222/3</td>
<td>(02) 340557</td>
</tr>
<tr>
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<td></td>
<td><a href="mailto:Enkesiti@form-net.com">Enkesiti@form-net.com</a></td>
</tr>
<tr>
<td>Finlay Flowers Ltd</td>
<td>Mr. N Davies</td>
<td>P.O. Box 223, Kenyatta</td>
<td>(0351) 20155</td>
<td>(0361) 30426</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0361) 30649</td>
<td><a href="mailto:net.davies@afhp.co.ke">net.davies@afhp.co.ke</a></td>
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<tr>
<td>Gaille Ltd</td>
<td>Mr. D Opondo</td>
<td>P.O. Box 62, Ruiru</td>
<td>(0151) 54624</td>
<td>(0151) 54413</td>
</tr>
<tr>
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<td><a href="mailto:dmbr@wananchi.com">dmbr@wananchi.com</a></td>
</tr>
<tr>
<td>Homegrown Ltd</td>
<td>Mr. A Spiropoulos</td>
<td>P.O. Box 10222, Nairobi</td>
<td>(02) 721188</td>
<td>(02) 712454</td>
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<tr>
<td></td>
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<td>(02) 729659</td>
<td><a href="mailto:admin@homegrown.co.ke">admin@homegrown.co.ke</a></td>
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<tr>
<td>Kenya Highland Nurseries Ltd</td>
<td>Mr. Nathani</td>
<td>P.O. Box 3474, Nakuru</td>
<td>(037) 216988</td>
<td>(037) 212807</td>
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<tr>
<td></td>
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<td>(037) 211999</td>
<td><a href="mailto:agncnta@net2000ke.com">agncnta@net2000ke.com</a></td>
</tr>
<tr>
<td>Kisabe Ltd</td>
<td>Mr. M Higgins</td>
<td>P.O. Box 356, Naivasha</td>
<td>(0311) 21008</td>
<td>(0311) 21009</td>
</tr>
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<td><a href="mailto:Kisabe@africaonline.co.kg">Kisabe@africaonline.co.kg</a></td>
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<tr>
<td>Kimsa Farm Ltd</td>
<td>Mr. I Freeman</td>
<td>P.O. Box Private</td>
<td>(0177) 41309</td>
<td>(02) 607529</td>
</tr>
</tbody>
</table>
References


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Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry


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Newsletters/Magazines

Floraculture international- http://www.floracultureintl.com/mediakit/
The New Agriculturalist- http://www.new-agri.co.uk/

Internet-Based Resources Used

Various Results from the following search engines
Reaping the Benefits of Globalization: The Case of Value Chains in the Kenyan Cut Flower Industry

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www.startingpage.com
www.virtualsalt.com

Specific Web sites
Flower Council of Holland -http://www.flowercouncil.org/uk/Flowercouncil/default.asp
Accessed 10/7/2002
IDS-www.ids.uk/ids/global/wkscf.html-Accessed severally

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Interviewed a former Employee of many Dutch Flower Companies.
KARI-in July