SECTOR STUDY OF THE HORTICULTURAL EXPORT SECTOR IN KENYA

A Study made on behalf of USAID, Kenya

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FKAB ***Feldt Consulting***

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Part I. EXECUTIVE SUMMARY.

1. **Introduction.** The USAID of Kenya contracted Mr. U. Feldt, FKAB *Feldt Consulting*, Sweden, to undertake a Sector Study of the Horticultural Sector in Kenya in order to identify areas for program support directed towards increasing productivity and competitiveness of the sector, increasing exports and improving rural household income. In order to define those areas, the consultant should identify the present and past performance of the sector as well as its future potential. Furthermore he should identify major cost areas such as airfreight and the viability of those, marketing conditions, restrictive regulation framework and standards as well as competitiveness of the sector and present and future major threats.

The consultant subcontracted one vegetable/fruit consultant in the UK and two local consultants in Kenya for the mission, which was undertaken in July-September, 2001. The consultant also held a seminar presenting his findings during his last week in Kenya and which was not included in the SOW.

Part II. PRESENT SITUATION AND EXPORT PERFORMANCE OF THE SECTOR.

2. **Flower exports performance.** Kenya became for the first time the major exporter of floricultural products into the EU markets in 1999, followed by Israel, Costa Rica, Colombia, USA, Ecuador and Zimbabwe. The total export value in 1999 was Ksh 7,2bn (36.992 tons), up from Ksh 3,6bn (29.376 tons) in 1995. The flower sector has undergone a dramatic change during the 1990's moving away from a rather limited assortment of low value, open field crops to a wider assortment of high value/high tech, greenhouse crops. This development also shows in the increased value per ton exported flower products (Ksh 123.000/ton in 1995 and Ksh 195.000/ton in 1999). The main reasons for this successful export development are that Kenya has developed a good reputation as a reliable supplier of good quality flowers, improved marketing systems and improved assortment. The main export products are roses (67%), carnations (8%), statice (6%), alstroemeria (5%), mixed (2%) and cut foliage (2%).

3. **Vegetable export performance.** The vegetable export sector has experienced a similar development as the floricultural sector. The total vegetable export value was Ksh 5,7bn (46.377 tons) in 1999, up from Ksh 2,8bn (32.404 tons) in 1995. Beans and peas make out the bulk of the exports (65% in value in 1999), and the trend in those export products has been one towards finer grades and which Kenya, with its long export experience in vegetables, has been able to provide and, hence, has been able to defend and improve its market position. During the 1990's, pre-packs for the supermarkets in mainly UK and Asian vegetables have become increasingly important products. This trend is expected to continue in the future and also expand into other EU markets.

4. **Fruit export performance.** The fruit exports show a different development than that for the flower and vegetable sectors. While the volume export statistics show a rather unchanged volume over the last five years (varying from 13.865 tons in 1995 to 15.595 tons in 1999 and with a peak in 1996 of 16.746 tons), the export value has increased over the years. However, the export values are uncertain, but the export value was Ksh 1,3bn in 1999. The major problem for the fruit sector has been the competition from Israel and Central America, which countries have had access to cheap sea freight. Kenya has lacked that opportunity in the past, but recently there is a direct connection for reefer containers into Marseilles and which has strengthened this sector significantly. The main export products are avocado (60%), mango (26%) and passion fruit (6%).

5. **Structure of the floricultural sector.** The floriculture export sector is dominated by a 4-5 very large companies, which have a developed vertical integrated system of producing, transporting and marketing flowers through their own chartered cargo space and their own marketing organizations, both in the Netherlands, Germany and the UK. However, the introduction of rose exports in the late 1980's opened up a possibility for small to medium sized companies to invest in rose production, transport the flowers with the cargo planes into the Netherlands and selling under their own name at

the flower auctions in the Netherlands. This sector developed quite rapidly during the 1990's and represents today an important part of the whole industry.

There is a major change of the sector during the 1990's, when brokers and out-growers became less important as suppliers of export products, due to both the stricter implementation of breeders rights on Alstroemerias but also due to a declining market for open field low-value crops. This has had a rather serious effect on rural household income in many areas, since the out-grower production was quite significant during the late 1980's-mid 1990's.

6. **Structure of the vegetable sector.** This sector is dominated by 5-9 major exporters, who control approx. 85% of the total exports of vegetables from Kenya. The increasing demands on issues such as label programs, MRLs, traceability etc. from the EU and from the individual markets within the EU, as well as the high investment cost of pre-packing facilities have resulted in a declining small to medium size export sector. The broker/briefcase exporters have also declined for the same reasons.

There is a distinct trend in this sector towards contracting more rather large farmers and less of the traditional out-growers. This development is largely caused by the stricter regulations concerning traceability, MRLs and other conditions by the large UK based supermarket chains, but also by the introduction of the CoP and other labels. Out-growers, who wish to continue to produce for the export vegetable sector, will most probably have to form larger groups of 30-50 members in the future, controlling a rather large piece of common land, which can be managed as a farm jointly by the members, maybe as a co-operative arrangement, and which is suitable for adequate production planning and supervision by the exporter. The traditional out-grower will, most probably decline in the future.

7. **The structure of the fruit sector.** The fruit sector is mainly dependent on brokers/agents and the out-grower system and is controlled by a few major vegetable exporters for avocados/passion fruit and a couple of exporters of mango/passion fruit. The mango is produced along the coastal areas whereas avocado and passion fruit are produced in the highlands. The passion fruit is produced mainly by larger production units, whereas the avocado and mango are produced almost exclusively by out-growers. This structure is not conform to the regulations of the CoP, but there should be an understanding of the conditions for the fruit sector.

8. **EU market overview.** The EU is he major market for Kenya horticulture exports. The EU, with its population of 450 million people is the largest importer of fresh horticultural products from non-EU countries in the world. In 1999, imports to the EU from non-EU countries of fresh vegetables exceeded US$ 1bn, imports of fresh fruits reached US$ 5,5bn and imports of flowers was almost US$ 1bn.

The EU market is, however, increasingly competitive and, in principle, saturated which has resulted in lower profit margins for non-EU suppliers of fresh horticultural products during the 1990's. The EU and its individual markets are also progressively introducing conditions and regulations to the non-EU suppliers which have made the previous easy access to the market more difficult and resulted in new costs being imposed on the suppliers. These measures cover areas such as traceability, MRLs, quarantine issues, packaging recycling, human well fare and –safety etc.

9. **Regional and Middle East markets.** These markets are overall quite small, apart for mango exports to the Middle East, and represent a very small percentage of the total exports of horticultural products from Kenya. In 1999, the total exports of horticultural products to those markets were 1,5% of the flower export volume, 0,4% of the vegetable exports and 19% of the fruit exports. More than 50% of the mango exports are directed towards the Middle East markets.

10. **Marketing of cut flowers.** The marketing systems for cut flowers are very well developed in Kenya, although there are some issues to develop in the future. Of the total exports of floricultural products into the EU from Kenya, 64% is sold to the Netherlands, 22% to the UK, 8% to Germany,

3% to Switzerland and the rest (3%) sold to the other EU markets. The Netherlands is the major distributor to other EU countries of floricultural products and their import market share to those markets is approx. 55%. In the consultant's opinion, Kenyan flower exporters will have to increase their efforts to export directly into the direct EU markets, in order to reach an import volume equal to or lower than the distribution capacity of the Netherlands of 55%. However, Kenya has been much more successful in its marketing efforts than most African countries, but less successful than Latin American exports, which have an American export trade tradition of not trusting to export anything without a fixed price. The Kenyan exporter obviously trusts the Dutch auction system to provide him/her with a decent profit.

It is expected that the Kenyan flower exporter will have to focus more on direct exports and also to expand the assortment in order to remain competitive in the future.

11. **Marketing of vegetables/fruits.** The marketing of vegetables and fruits is very different from marketing flowers, where the main marketing channel is the Dutch flower auctions. Fruits and vegetables are mainly sold on fixed export contracts and at fixed export prices, where the exporter knows the profit margin before shipping the product. The main markets for the vegetable exports are the UK (53%), followed by France (24%), the Netherlands (7%) and Germany (4%). The main markets for the fruit exports are France (25%), followed by Dubai (14%), the Netherlands (13%) and UK (11%).

The marketing of vegetables has been focused on the UK supermarket chains, from which rigorous regulations concerning traceability, MRLs, business conduct, human safety and –conditions, etc. have developed, but also added value products such as mixed salads, pre-packs etc. It is expected that the same development will occur also in other northern EU countries in the future, and which will present a major challenge but also a major market opportunity for Kenyan vegetable exporters.

The fruit export market has been under pressure from competing countries for a number of years, mainly because of the lack of functioning seaport facilities and lack of adequate sea connections to the EU markets. However, recently there is a rather feasible direct connection to Marseilles in France, and which has promoted exports by sea, and hence, allowed the Kenyan exporters of fruits to be competitive to the exports from Israel and Central America. However, this advantage seems, at present, to be partly lost because the port authorities have decided to delay transfer at the port with 4-5 days because all forwarding agents have to make use of the port's equipment which are not appropriate to the needs. This is most unfortunate, and the forwarding agents should be allowed to use their own equipment, which is in place, without paying the Kenya Port Authority the equivalent for the use of KPA's equipment.

12. **Competitiveness.** Kenya has the following major competitive advantages:

- A strong and well-organized private sector.
- A variety of suitable climates for a large variety of species.
- A rather good main road infrastructure and good local supplies of inputs and implements.
- Access to good air cargo handling facilities and airport services, adequate cargo space to major destinations.
- Rather simple export documentation procedure.
- Incentives for exporters through repayments of VAT and duty free imports of most inputs and implements.

13. **Negative aspects and threats.** In spite of the present obvious strength of the sector there are a number of issues that require immediate improvements in the near future, in order to keep the positive development of the sector and increase of rural household income, and also represent major constraints and serious future threats of the whole sector.

The issues representing constraints and require improvements are:

- Water shortage for irrigation purpose is a major constraint in many areas and is an issue that should be addressed properly.
- There is a general shortage of skilled labor and qualified management staff.
- Improvements are needed on airfreight rates, increased cargo capacity to London, Paris and Frankfurt. Infrastructure improvements on communications, power supply, rural road net work as well as improved technical competence.
- Contract farmers as well as out-growers are not exempt of VAT and/or import duties, since the products are exported through a third party, but the products are export products.

The threats to the sector are major and presented below:

- There is a general fear in the private export sector that taxes and fees will be increased in the future, without their ability to influence the decisions.
- The decision to apply import duties on horticultural imports to the EU after 2007 will have a major effect on the horticultural industry. The present import duties into the EU will have the following net effects on the horticultural export sector in Kenya:

    1. The present import duties would increase the costs on the present fob value with 22% (winter) and 32% (summer) for flowers, 31% for vegetables and 11% for fruits. The profit margins to assimilate these additional costs are not available, and this will result in a serious decline of Kenyan horticulture exports over the next few years. The timetable for the expected results of this decision is largely under-estimated in Kenya.
    2. The timetable for successful negotiations between Kenya and the EU is shorter than the interested parties in Kenya is generally aware of. If information containing a possible positive outcome of these negotiations is not presented to the sector within a rather short period of time, there will be serious effects on the developments of the sector already from 2003 and onwards, mainly for the following reasons:

a. Investments in the floriculture sector will probably decline significantly in 2003, because the repayment period is 3-5 years.
b. Exporters will start looking for alternative production areas within the LDC countries, which is already happening.
c. Financing institutions will probably restrict financing to the sector by at the latest 2004

It will, however, take some years for the sector to adapt to the new regulations, but on long term it will be devastating for the Kenyan horticulture export sector.

- There is also a Horticultural Bill, which expands the mandate for HCDA to implement major changes of its operation in the fields of extension service, marketing, research etc, and which costs will be collected from the private sector. After meetings with the private sector, they understand the Bill as a copy of what they are already doing and the program presented by HCDA will not add anything of value for the sector, only impose a cost. The private sector also feels that this is a first attempt of the government to organize the sector under increased government. The private sector oppose the Bill strongly.
- HCDA has invested in some 7 storage- and handling facilities for vegetables, fruits and flowers from out-grower sources throughout the major production areas. They have contracted approx. 400 out-growers to join a system, where HCDA will store, grade and transport their products, and sell them through HCDA's market channels. HCDA has also the mandate to export the produce. The private sector has serious difficulties in accepting that HCDA can be both a competitor and a regulatory body. However, the storage facilities could be made available for the private sector on a contractual basis inclusive of transport and local collection of merchandize, and in which case the facilities may become

an asset for the sector. However, these facilities should have been built 10-15 years ago, when they would have served the sector much more.

14. **Freight rates.** The airfreight rates from Nairobi are reasonable competitive. However, landing- and navigation costs are 30% higher in Nairobi when compared to neighboring airports. In the consultant's opinion, cargo rates could be negotiated down with approx. 7-10% from the present rates if exporters would work together and plan appropriate shipping volumes and timetables. It is highly unlikely that exporters will operate their own cargo flights in the future, due to the complexity of such an operation. Cargo rates depend very much on the composition of the freight and if Kenyan exporters could identify a high value/high density export cargo, rates would most probably be much more negotiable. The reefer container rates from Mombasa to Middle East are inflated, mainly because of the difficulty to recover the reefers from the Middle East. The rates are also inflated to Marseilles, mainly because of little competition.

14. **Regulation framework.** In principal, the standards and grade requirements of horticultural products are set by the importing country. There are standards in Kenya for seed and packaging, but it is the contacts with the markets that regulate these issues.

Exporters in Kenya require an export license to be able to export, and the cost of such a license as well as the performance level of the applicant will increase in the future. The sector strongly opposes an increase of the fees.

15. **The status of exports organizations in Kenya.** There are two major organizations for the exporters in Kenya; FPEAK who mainly focuses on the vegetable- and fruit export sector and KFC, who focuses on the floricultural sector. KFC is seen to be the stronger of these organizations, but FPEAK is undergoing a major restructuring and will probably become as strong as KFC in a short period of time. The two organizations co-operate very well.

Part III. USAID assistance options.

In the consultant's opinion, USAID should focus on the following issues, in order to assist the industry and improve rural household income:

- Marketing: There will be a need for marketing assistance, partly via the existing exporter organizations, KFC and FPEAK, but also based on individual company market efforts. This assistance should be limited to small- medium sized export companies.
- Out-grower assistance. There is a need to re-organize the out-growers into co-operative groups of suitable entities to be interesting for the exporters in the future. There is need for both technical assistance, funding of inputs and implements such as irrigation equipment and coolers.
- The implementation of the CoP will require training of pre-auditing personnel, and there is, at present, no organization undertaking this cost.
- There is a need for an organization to undertake the external requirements of training of personnel in the private sector on issues required by the CoP and/or other label programs.

It is recommended that USAID initiate bi-annual meetings with the major aid organizations working the horticultural sector in Kenya in order not to duplicate or compete with one another in the same area and to make best use of the funds available.

Part II. 1. INTRODUCTION.

Kenyan horticulture exports have come a long way from the situation when the consultant visited Kenya for the first time in 1983. Today, people may have forgotten the situation in those days, when an exporter had to pass via one of the big exporters in order to get cargo space on the air crafts since the major exporters controlled most of the cargo space. To get space on the regular flights involved the exporter's presence at the airport's handling facilities and it was a fight to get the shipment on the airplane and not being left behind.

The present situation is very different and changed dramatically with the introduction of small to medium sized exporters of roses in the early 1990's. These improvements also spread into the vegetable- and fruit export sector, and which allowed for smaller companies to export at reasonable rates and to obtain the cargo space they needed. The present situation is that, if you are working together with other exporters and well organized on freight planning, an exporter may very well reach almost the same freight benefits as the bigger exporters.

The situation has also changed in other aspects. It is no longer only a few stakeholders who have all the knowledge and benefits. Knowledge is much more freely available and it is up to the individual entrepreneur to find his way forward. The inputs and knowledge are available to anyone.

The horticultural sector export value was, according to HCDA statistics, Ksh 14,2 bn in 1999, of which 7,2 bn were cut flower exports, 5,7 bn was vegetable exports and 1,3 bn was fruit exports. The export value has doubled since 1995.

Some 10-15 major exporting companies dominate the sector. These companies are very well organized, often with an integrated system of production/processing/transport/ marketing. There is also a quite well developed small/medium size exporter sector who are well organized on production/transporting level, but less on processing and marketing due to their size of operation. There is a third level of exporters who still perform more or less in an ad hoc manner, and rely on the prevalent market situation and brokers for their existence. However, the latter group has almost disappeared from the flower export sector in the last five years, and will, most probably decline also in the vegetable sector in the next few years due to the effects of the Code of Practice to be implemented. However, brokers make out an essential part of the fruit export sector and will continue to be important if Kenya is going to remain a fruit exporting country in the future.

The trend during the last ten years has been one towards an increased responsibility for worker health and living conditions, improving rural income, safety, maximum residue levels of products (MRLs), environmentally suitable production methods etc. and many companies provide housing, medical care etc. to their work force. This is a consequence of the rather recently introduced label systems in Europe and mainly UK supermarket chain requirements but also a result of the National Code of Practice being implemented in Kenya. It will be very important to achieve an acceptance of the National CoP by the new EUREGAP code of practice for EU as a whole, which will be presented in September 2001.

The present situation of the whole sector is one of strength due to both climatic advantages, labor availability, air cargo availability, private sector achievements and government non-involvement in the private sector. The horticultural export sector has been able to stay competitive over the last 20 years, in spite of heavy competition from other African countries, Israel and from Latin American countries. However, there are presently a number of threats to the industry which may cripple the industry over the next 3-5 years and which, if not acted upon in time and successfully, will place the Kenyan export industry in a very difficult position with a dramatic decline of export.

II. PRESENT EXPORT PERFORMANCE OF THE SECTOR.

2.1. **Flower Export Performance**.

Kenyan flower exports have developed very well over the last decade and Kenya is presently the major non-European supply country into the EU for cut flowers. Kenya has developed into a reliable supplier of high quality flowers into the EU.

Below follows both the export development as well as the import development to the EU from Kenya. Both statistics are presented due to the uncertainty of both import figures to the EU and of the export figures from Kenya. The import figures represent CIF value and the export figures represent fob values, and are, therefore, not directly comparable.

For the first time, Kenya has become the major supplier of floricultural products into the markets in Western Europe in 1999, followed by Israel, Costa Rica, Colombia, USA, Ecuador, Zimbabwe, Guatemala and South Africa. The EU statistics below are rather accurate on volume basis from non-EU suppliers, but very uncertain in value terms since there are many different systems for invoicing depending on import duties, local taxation etc. Over the years the assortment of cut flowers exported from Kenya has expanded and covers today a wide range of cut flowers. There has been a trend towards producing flower crops that require much more expensive planting material and/or production techniques/ installations, and this trend seems to continue. These developments will increase Kenya's competitiveness in the future. The export assortment has, during the same period, changed from the bulk being open field, low value cut flower crops, into more sophisticated cut flowers such as roses, Zanthedeschia, Eustoma etc. The trend is clearly towards more high value products and less low value, risky products. For the low value assortment, the production is dominated by a few players to ascertain a price level equal to the risk taken by the exporter, and which has stabilized the market situation for species such as statice, delphinium, solidaster, solidago etc.

Imports of cut flowers, cut decorative foliage, flower bulbs and live plants to Western Europe 1985-99 ('000 US$ and '000 KGs):

	1985		1995*		1996*		1997*		1998*		1999**	
	'000 US$	'000 KGs	'000 US$	'000 KGs	'000 US$	'000 KGs	'000 US$	'000 KGs	'000 US$	'000 KGs	'000 US$	'000 KGs
Cut flowers	912.666	250.975	2.463.885	450.469	2.897.506	512.424	2.793.277	570.382	3.043.340	577.149	2.753.113	613.739
Cut foliage	62.088	22.758	387.055	114.694	438.553	130.637	456.664	145.522	473.481	155.685	484.877	175.185
Flower bulbs	249.165	127.917	369.851	105.674	375.333	94.939	357.902	99.230	400.662	110.137	361.828	129.563
Live plants	826.227	534.687	1.919.790	712.649	2.071.026	767.430	2.200.628	873.606	2.687.088	997.848	2.444.842	1.077.406
Total	**2.101.897**	**954.566**	**5.140.580**	**1.383.486**	**5.782.418**	**1.505.430**	**5.951.768**	**1.688.740**	**6.604.571**	**1.840.819**	**6.044.661**	**1.995.893**
Of which from												
Africa	**41.340**	**16.666**	**230.340**	**53.338**	**294.330**	**63.310**	**257.798**	**62.500**	**282.344**	**64.141**	**306.463**	**76.403**
Asia	28.860	5.300	76.472	18.228	85.499	21.795	85.451	23.178	80.062	22.031	83.725	24.700
Middle East	85.679	24.742	192.577	39.675	217.576	48.290	211.974	52.208	229.655	58.711	171.734	67.073
Latin America	63.391	26.094	300.874	76.312	309.893	78.871	349.107	93.116	371.766	101.827	368.607	115.988
Kenya	**N/A**	**N/A**	**110.081**	**26.545**	**118.358**	**29.893**	**125.132**	**32.331**	**136.136**	**30.806**	**156.548**	**37.812**

Sources: National statistics compiled by the consultant (-92) and AIPH (Int. Ass. of Hort. Prod.).
* In the 1993-97 statistics, Austria is not yet available, and there are still trade statistics missing for parts of the year for other countries.
** The statistics for 1999 are provisional, but rather accurate for overseas' imports.

Exports of cut flowers from Kenya 1995-1999 (HCDA statistics):

	1995		1996		1997		1998		1999	
	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs
Cut flowers	3.642.319	29.376	4.364.981	35.212	4.891.039	35.653	4.865.934	30.229	7.226.300	36.992
Of which										
Roses	1.766.033	14.242	1.876.095	N/A	2.499.313	18.263	3.361.656	17977	5.519.865	24.620
Carnations	288.201	4.521	315.668	N/A	270.041	2.771	362.283	2.842	332.159	2.979
Statice	493.693	3.981	581.002	N/A	463.302	3.389	310.323	3.267	243.401	2.208
Alstroemeria	331.022	2.670	518.470	N/A	343.541	2.687	343.541	1.910	231.438	1.689
Mixed	N/A	N/A	N/A	N/A	N/A	N/A	4.504	42	91.578	721
Cut Foliage	270.319	2.180	736.965	N/A	901.651	5.494	901.651	1.176	120.574	740

The consultant has chosen a few important species in the above statistics. The floriculture exports from Kenya has changed in the last few years towards a much bigger exports of cut roses and a decline in the traditional cut flower exports from Kenya. The traditional exports consisted of mainly Spray carnations (declined with more than 50% in the last five years), statice (declined with 45% in the last five years), solidaster (declined by a third over the same period), solidago (lost half of the export volume over the same period). Other flowers have increased over the same period such as roses (almost doubled over the last five years), standard carnations have become more important than spray carnations, mixed bouquets has become an important export product, Zanthedeschia, lisianthus (eustoma) are increasing together with a number other cut flowers such as gypsophila, rudbeckia, lilies, lisianthus, hypericum, veronica etc. There seem to be much more opportunity today for the flower producers than a few years ago, and there is probably opportunities for a lot of development of the assortment.

The HCDA statistics 1995-99 shows that the floriculture exports from Kenya has increased with 26% in volume and 98% in value, much due to the change from low value open field crops to higher value crops produced in greenhouses. The EU statistics from 1995-99 shows and increase of both value and volume to 42%. The HCDA statistics include also regional and Middle East exports. Both statistics show a rather significant export increase. It is likely that Kenyan floriculture exports will continue to increase at a pace that at least conforms to the expected growth of the EU markets, or approx. 4-7% in volume annually over the next 5-10 years, provided that the export companies proceed without government involvement as has been the case during the past few years.

The floriculture exports from Kenya represents approx. 51% in value and 37% in volume of the total horticultural exports in the year 1999, compared to 40% in value for vegetables (47% in volume) and fruits 9% in value (16% in volume). The volume of vegetables and fruits is important for the floriculture air cargo rates, since a cargo plane has to mix the three categories in order to arrive at the optimum weight/volume ratio.

2.2. **Vegetable/Fruit Export Performance.**

The vegetable exports from Kenya show a similar development over the last five years as the floriculture sector, with an export increase of 43% for vegetables but only 12% for fruit in volume according to the HCDA statistics (the EU import statistics show a volume increase of 125% and 95% respectively in volume) and which is a good achievement. It is expected that the vegetable export will increase with 7-10% in volume and fruit exports will increase with 2-4% in volume annually during the next few years.

As can be seen in the tables below, the major export items into the EU from Kenya are peas, beans, and Asian vegetables. The main reason for the export success is the close co-operation with the supermarket chains in the UK, a smooth adaptation to the new criteria concerning MRLs and other criteria defined in the various label and other programs implemented by the supermarkets and other market sources, and also the rather rapid transformation into pre-packs by the major Kenyan exporters.

Exports of vegetables/fruit from Kenya 1995-1999 (HCDA statistics):

	1995		1996		1997		1998		1999	
	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs
Vegetable	2.822.184	32.404	2.566.131	32.110	3.028.145	33.113	4.052.231	36.795	5.712.772	46.377
Fruit	617.349	13.865	769.520	16.746	805.464	15.454	819.528	11.349	1.256.805	15.595
Of which										
Avocado	394.377	9.859	417.178	10.429	495.437	11.290	286.505	6.367	498.581	9.233
Mango	104.750	2.277	195.291	4.245	195.570	2.525	162.848	2.505	311.591	3.995
Passion	72.081	901	78.562	983	67.108	842	60.741	636	106.235	932
Beans	1.140.199	14.932	1.193.922	16.432	1.650.098	14.519	1.774.423	14.476	2.849.942	19.086
R. beans	106.410	1.819	235.234	2.179	272.880	1.519	436.370	2.215	436.829	2.951
Peas	265.618	2.630	303.013	3.904	474.623	4.278	458.992	4.189	428.717	4.422
Asian	293.654	4.664	273.546	4.984	306.256	5.643	316.333	4.934	510.351	6.352

The development in the fruit sector is mainly due to the exports of avocados, which cover 90% of the total fruit exports from Kenya to the EU, and 60% of the fruit exports from Kenya. Other fruit exports have declined due to cheaper sea freight possibilities from other supply countries, mainly the Caribbean and Latin America. However, sea shipments of Avocado and Mango are being done successfully now, both into the EU and the Middle East from Kenya. Below follows statistics of the major vegetable/fruit export products from Kenya.

Exports of vegetables/fruits by country from Kenya 1995-1999 (HCDA statistics):

	1995		1996		1997		1998		1999	
	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs	'000 KSH	'000 KGs
Vegetable										
UK	---	16.630	---	18.153	---	19.978	---	19.365	---	24.391
France	---	7.626	---	4.684	---	3.775	---	9.385	---	10.932
Germany	---	927	---	864	---	1.697	---	1.513	---	1.860
Holland	---	2.761	---	1.070	---	2.631	---	1.463	---	3.374
Other EU	---	2.902	---	7.089	---	5.018	---	2.080	---	2.137
S. Arabia	---	10	---	8	---	12	---	16	---	19
Djibouti	---	---	---	29	---	2	---	---	---	---
Other ME	---	92	---	---	---	---	---	---	---	---
S. Africa	---	---	---	72	---	234	---	2.200	---	89
Other	---	1.457	---	774	---	816	---	774	---	3.575
Total	---	32.404	---	32.743	---	33.113	---	36.796	---	46.377
Fruit										
France	---	4.232	---	5.450	---	6.916	---	2.207	---	3.976
UK	---	1.438	---	907	---	1.406	---	810	---	1.667
Holland	---	3.163	---	3.278	---	4.369	---	3.139	---	1.984
Germany	---	976	---	914	---	743	---	726	---	509
Other EU	---	326	---	956	---	524	---	176	---	2.164
S. Arabia	---	---	---	781	---	792	---	519	---	675
Djibouti	---	---	---	14	---	4	---	---	---	---
Dubai	---	---	---	---	---	---	---	---	---	2.229
Other ME	---	2.387	---	---	---	---	---	---	---	---
S. Africa	---	---	---	242	---	241	---	218	---	30
Other	---	1.343	---	4.327	---	2.456	---	3.555	---	2.371
Total	---	13.866	---	16.869	---	17.454	---	11.349	---	15.595

EU Imports of Fresh Fruit, Units: tons

	1990		1999	
	EU Imports from Kenya	**Total EU Imports (from outside EU)**	**EU Imports from Kenya**	**Total EU Imports (from outside EU)**
Avocado	2.845	78.829	9.738	88.960
Total Fresh Fruit	5.425	7.250.506	10.592	8.479.640

- Avocados now account for over 90% of Kenya's fruit exports to the EU
- Other products such as mangoes and pineapples that were more important in 1990 have faded as sea-freighting origins gained market share.

EU Imports of Fresh Vegetables, Units: tons.

	1990		1999	
	EU Imports from Kenya	**Total EU Imports (from outside EU)**	**EU Imports from Kenya**	**Total EU Imports (from outside EU)**
Onions/shallots	---	330.019	427	273.072
Garlic	---	28.362	210	40.177
Peas	27	5.282	7.766	17.044
Beans	14.271	39.333	21.358	76.295
Other Legymes	321	921	226	1.366
Aubergine	112	5.668	62	2.697
Capsicum	284	39.962	1.295	80.244
Spinach	---	140	112	420
Sweetcorn	1	3.805	108	10.307
Courgette	9	3.118	13	14.308
Other Vegetable	3.347	20.821	9.568	46.217
Total Fresh Vegetable	18.300	1.335.042	41.167	1.389.883

- Other vegetables probably refers mostly to Asian vegetables from Kenya
- The important exports to the EU are peas, beans, capsicums and Asian vegetable
- Sweetcorn from Kenya refers to babycorn, and total EU imports are more likely 4,000 tons. The total figure here includes the big sweetcorn from USA and Israel.
- See app.5. for more detailed information about major vegetable and fruit species**.**

2.2.1. **Fresh Fruit and Vegetables in Europe.**

- The EU is an important producer of fruit and vegetables.
- There are major regional differences in consumption patterns.
- The EU food market is broadly saturated. Fresh vegetable consumption is declining slowly, perhaps in consequence to the move away from formal meals and food preparation to ready made meals, snacking and eating out. Fresh fruit consumption is rising, perhaps through the increase in snacking and interest in healthy eating.
- There is little advertising in fresh produce. The only significant marketing initiatives tend to be governmental, with campaigns, for example, among children to develop the healthy eating habits, or the more generic five-a–day efforts to encourage daily consumption of five portions of fruit and vegetables.
- Conversely, the competing products, such as confectionery items in the snack market, enjoy some of the strongest consumer advertising campaigns in the food market.
- However, retailers expect the suppliers to support promotional campaigns in terms of money off, or more for less, which promotes the store image to the consumer.
- Fresh fruit and vegetables are imported to Europe for climatic reasons, for example tropical fruits, seasonal reasons, such as the seasonal temperate fruits, or labor cost such as the fine vegetables.
- The EU imported 1.4bn tons of vegetables and almost 8bn tons of fruit in 1999. These figures only relate to imports from outside the EU, not trade between member within the EU.
- Products showing growth in imports include the carrots, legumes, 'other vegetables' among the vegetables, and in the fruit trade imports of tropical fruits such as pineapples, mangoes, litchis as well as grapes, melons, stonefruit and 'Other Fruit' are increasing.

- The major importers and consumers in the EU are located in the northwest: France, United Kingdom and Germany. The Netherlands and Belgium are also important importers but in their role as distributors across northern Europe.
- In southern Europe, the climate is more suited to the production of a wider range of fresh produce over a longer season, and there is a preference among consumers for locally grown products in their appropriate season. Where north European consumers now expect year round supply, southern European consumers tend to purchase local products in season and don't expect year around supply.
- Kenya supplies 41,000 tons of vegetables and 10,500 tons of fruits to the EU. The most important products are beans, mangetout, avocados and Asian vegetables. The UK is the largest importer of fresh fruit and vegetables from Kenya.

2.2.2. **Kenya's Position as a Fresh Produce Supplier**

- In fresh produce, Kenyan exports have achieved remarkable strength in supplying the European markets with peas and beans.
- The solid position in Europe in these products is, however, confined to the UK. There is poor penetration in continental markets.
- Kenya is dependent on air freighting. Currently, sea freighting is too slow and too expensive to be truly competitive with other suppliers, although avocado/mango exports by sea are significant.
- The comparative advantages of the Kenyan exporters lie in the climate and the range of climates in tropical conditions, the comparatively low cost of airfreight, the advanced technology, particularly in legume production and the reputation in the market.
- The position of Kenya as a supplier may be eroded if the preferences given to Kenyan exports in gaining duty free access to the EU are withdrawn. The preferences, given to Kenya as an ACP exporter, are not consistent with the WTO agreement and are the subject of discussion. It is possible that the preferences may be withdrawn by 2008.

2.3. **Structure of the Horticulture Export Sector.**

The horticultural export sector has developed into its present state without any harmful involvement from the government. However, it is wrong to say that it has happened without government involvement, since government involvement is required from a phytosanitary point of view as well as from legal point of view. A number of issues have evolved during the work with this report, and it seems that the government will try to get more direct control of the sector in the future and which the exporters anticipate will be a serious threat to the future development of the sector. However, at present, purely private companies manage the sector and future expectations below are on the assumption that the situation will remain unchanged over the next ten years.

2.3.1. **The Floriculture Sector.**

The floriculture export sector is dominated by a few very large companies, which have a developed vertical integrated system of producing, transporting and marketing flowers through their own chartered cargo space and their own marketing organizations, both in the Netherlands, Germany and the UK. However, the introduction of rose exports in the late 1980's opened up a possibility for small to medium sized companies to invest in rose production, transport the flowers with the cargo planes into the Netherlands and selling under their own name at the flower auctions in the Netherlands. This sector developed quite rapidly during the 1990's and represents today an important but also a vulnerable part of the whole industry.

Below follows a description of the structure of the sector and recent developments as well as developments expected in the future.

- Large companies: There are presently 3-5 large companies, often owned by international investors, who partly dominate the sector and are presently increasing their dominance through offering co-operation contracts to smaller exporters. They have a very high level of production technical expertise, and are often managed by mainly expatriates. They manage their own production, cold chain, handling facilities at the airport, transport to Europe and also the marketing in Europe. These large companies represent a significant strength of the sector and have found solutions to many technical/transport/marketing-related issues, which information eventually leaks to the small to medium size companies. When analyzing the companies contracted to these larger companies, the contracted companies have quite a number of benefits through the co-operation contracts and also higher revenues. These large companies have also been the spearheads to develop a rather high level of operation for pesticide usage, pesticide handling, -application, safety and medical care for workers, female safety and other concerns etc., especially in rural areas. There is, however, less distinction today between the very large companies and major companies than was the situation some ten years ago.

- Small to Medium Size Exporters: This sector consists mainly of exporters producing roses for exports on from two to some 20-30 hectares of mainly roses, but also producers of Eustoma, Alstroemeria, Zanthedeschia a/o. species. This sector is the one that has been mostly hit by the declining prices at the Dutch flower auctions, and which have had very limited possibilities to change their market position, but also a sector that has expanded very much in the 1990's. They are often too small to collect adequate market information or they are, in general, not geared towards the challenges of direct marketing. There are companies within this sector, which are quite profitable, and there are companies, which make substantial losses. During the last decade, the profitability within this sector has declined from approx. 50% profitability during the late 1980's to 10-15% in the late 1990's, and the latter is valid only for companies with proper technical assistance and provided that no mistakes are made. If the expansion of cut flower exports from not only Kenya but the whole of Africa continues as it has done during the last decade, a lot of companies in this sector will have serious problems, and, already, quite a number face serious financial problems. The major problems in this sector are lack of adequate technical assistance, lack of appropriate market information and market contacts and poor financing. Qualified management of the farms is another serious problem of this sector. Major recent changes of the sector are:

    - The out-grower sector: The out-grower sector in Kenyan floriculture exports was quite important back in the 1980's, but the consultant has found a substantial decline in this sector, especially during the last five years. Very few of the exporters presently use out-growers under own contract or through brokers and the system is expected to decline further over the next decade. The reasons for this development are that the export assortment is moving towards more high investment cost/high value crops, which the out-growers cannot afford and which are too expensive for the exporters to supervise with small out-growers. The second main reason is that due to royalty charges on imports of mainly Altroemeria, the exporters found this trade to be non-profitable.

    - The broker system is likely to decline in the future due to the conditions set out in the National Code of Practice.

    - As a result of increasing export volumes from Africa designed for the auctions in the Netherlands coupled with the Dutch growers' improved production methods, the prices for African cut flowers and in particular roses have declined in the last decade. This development have resulted in an expansion of existing farms into bigger units in order to remain competitive, but also a reduced interest from financial institutions to finance new projects, not only in Kenya but in Africa as a whole. The declining profits in especially rose production will most probably lead to a declining export growth rate to the EU markets of roses from Africa.

2.3.2. **The Vegetable/Fruit Sectors.**

A few, rather big exporters also dominate the vegetable/fruit sector, and there are two sub-sectors of small to medium sized exporters working mainly with out-growers but on a regular basis and a broker sector that either supplies the above sector or exports when they have orders and not on regular supply contracts. However, the latter sector is declining due to the stricter import regulations being implemented in the EU and also as a result of an increasingly strict contractual commitment between the exporters and the out-growers. In general, the vegetable sector exports is moving towards less dependency on small out-growers, but rather contracting larger producers and/or groups of out-growers, whereas the fruit export sector is still highly dependant on the out-grower system. In total, considering the increasing demands for traceability and the MRLs, and also owing to the increasing competition from competing countries of the staple products such as Ethiopia, Burkina Faso, Uganda, Ghana, Egypt etc. with lower air freight rates, Kenya will most probably decline as a supplier for these products in the future. It is the consultant's opinion that Kenyan vegetable exports will move towards added value products such as ready-packed products, strip marked and ready for supermarket sales in Europe, especially UK but also other EU countries, and also specialize in the finer grades of beans and peas. The fruit sector will continue to be highly dependent on out-growers also in the future, but since avocados and mangos are grown almost without the use of chemicals, it will pose less of a problem in relation to the CoP and MRLs. The sector is structured as follows:

- There are some 9 companies, which control 85% of the fresh vegetable/fruit exports from Kenya. These companies do direct exports to the major supermarket chains in the UK and to a certain extent to other major supermarket chains in mainland Europe, as well as to individual importers. The UK supermarket chains have been leading in imposing strict measures regarding pesticide usage, workers safety, social safety and medical care of workers etc. and those regulations have been employed by all the major vegetable/fruit exporting companies in Kenya. It is expected that also other supermarket buying centers in the EU, such as in Germany, France, the Netherlands, Scandinavia etc. will follow the UK experience in the next 10 years, and that the whole of the Kenyan export trade of vegetables/fruits will have to comply with the same regulations. This will result in less dependency on the out-grower system, because of the difficulties to keep control of this sector together with difficulties in getting an approval for the system from the importers. This will reduce the number of brokers in the exports of vegetables/fruits. For the vegetable sector, these developments are not deemed to have a negative influence, and for the fruit export sector, the conditions of the sector will have to be taken into consideration.

- There is a number of small- to medium size exporters in the vegetable sector that depend only on out-grower groups and/or on brokers. These exporters are expected to experience more difficulties in the future with the increasingly stringent regulations on MRLs and the CoP being implemented and also through a stricter policy from HCDA on issuing export licenses. This will affect the out-grower sector negatively in the years to come and restrict their access to the export market.

- The out-grower sector consists of some 4.000 growers with a production area of everything less than 2 acres each under contracts. There is probably an additional some 1.000-2.000 out-growers working for the broker system, i.e. totally 5-6.000 in the vegetable sector with a production area of some 4-6.000 acres (1-1.500 hectares). The major crops are French beans, Runner Beans, baby corn and Peas. The systems employed by the exporters for this sector is that the exporter supplies the seed, technical advice and production planning. Most of the out-growers work under rather strict contracts and are excluded from future contracts if they don't comply with the conditions in the contract. It is up to each individual group or out-grower to supply other inputs such as chemicals and fertilizer. This latter aspect is a problem for the system, but a result of the distrust that the out-grower will, in the end, abide by the contract conditions.

- The vegetable/fruit export sector is to a large extent depending on out-grower production at present, but an increasing market demand for finer grade vegetables coupled with the market regulations and the increasing costs for maintaining technical input and probably the risks of providing also fertilizer and pest control in the future, will most probably force the exporters into contracting larger producer units as is what happens presently in Kenya. These larger units consist of up to 60-80 acres or more, which produce under contract for a specific exporter. These units are easier to control, and the size of the units provides for a better financial position to pay for inputs themselves. At present, such a system seems to be very difficult to implement in the fruit sector, since a large share of the export production is collected from rather small out-growers.

2.4. **Marketing.**

2.4.1. **EU Market Overview.**

The European Union now integrates the economies of 15 member states:

Member	Pop. mn	Member	Pop. mn	Member	Pop. Mn
Austria	8,1	Germany	82,0	Netherlands	15,8
Belgium	10,2	Greece	10,5	Portugal	10,0
Denmark	5,3	Ireland	3,7	Spain	39,4
Finland	5,2	Italy	57,6	Sweden	8,9
France	59,0	Luxembourg	0,4	United Kingdom	59,2

Almost all of Western Europe is included in the EU; only Norway and Switzerland are not members. A number of other countries have applied to join and are at various stages of negotiation: Turkey is an official candidate, and Cyprus, Malta and 10 East European neighbors of the EU are in discussion with the Commission.

The EU is the largest market in the world for imported fresh produce. In 1999, imports to the EU from non-EU countries of fresh vegetables exceeded US$ 1bn while imports of fresh fruits reached US$ 5.5bn. Imports of floricultural products from non-EU countries were almost US$ 1 bn.

Unification of the member states into the EU has had a significant effect on the fresh horticultural trade. In particular:

- The customs union means that imports are only controlled at the point of entry to the EU and are thereafter free to circulate
- Freedom of movement of goods allows perishable products to move within the EU without unnecessary border delays.
- The monetary union will have important implications for the business system in the EU and exporters must be prepared for the Euro.
- External relations, support for the ACP countries for example, is common to all EU members in preferential tariffs for import duties (present situation).
- In legislation the progression of harmonization has led to a reduction of national trade barriers so that individual member economies can no longer distinguish between locally produced and imported goods. However, the process of harmonization of legislation is leading to a new generation of food regulation covering a diversity of aspects from standards, through hygiene to labeling and packaging waste.

While the economies and legislation of Europe are becoming unified the markets remain quite diverse. Each country has its own culture, tradition, climate and economy influencing consumer spending and behavior. While we can recognize regions of similarity such as the affluent band of Northern France, South East England, Belgium, Netherlands and Northern Germany, even within member states there

can be strong regional differences in tastes and customs. This is not surprising in view of the varied historic, cultural and climatic backgrounds. The social diversity of Europe is further expanded by the influence of immigration from former colonies and territories, and where those colonial links have been maintained there are often marked trading connections. The geographical range of the EU also has implications for agricultural production. The diversity of territories and climates, from arctic north to Mediterranean south and from sea level to the high mountains, allows for a wide range of crops to be grown over an extensive season.

Thus, the EU presents an opportunity to the exporter of being the largest import market in the World for fresh horticultural products, with access becoming progressively more straightforward as legislation is harmonized albeit with new regulations, but where a diversified marketplace still exists. The market prospects seem even better in the future when some 10-12 new members are joining the EU, which countries are not saturated, and which will present exporters with a significant market opportunity. However, for the fresh produce exporter it is an increasingly difficult market:

- The EU food market is saturated and a new entrant must displace an existing product. The same is mainly true also for fruit and flower exporters. There are, however, still small sector opportunities to be explored.
- The market is ever more competitive and narrowing margins raised by the entry barriers, and exporters must handle increasing volumes to maintain income.
- The structure of EU food retailing has undergone a revolution over the last 10 to 15 years. With control increasingly focused in the hands of relatively few chains of large format retail stores, supermarkets and hypermarkets.
- This consolidation has led to new and more direct supply linkages where the produce supplier must be able to respond immediately to the competitive issues in the consumer markets: price, consumption trends, fashion and the consumer concerns on issues from food preparation time to product safety and ethical policy. The same issues are becoming increasingly important also to the flower exporters.
- Flower exporters have experienced increased difficulties in achieving adequate profit levels through the easy Dutch auction sales, and will be required to develop their marketing systems in the future to remain competitive and profitable.

2.4.2. **Marketing in the EU.**

Flower marketing in the EU was traditionally based on sales through the Dutch auction system, which is still the main marketing system. However, the big exporters in Kenya and also some of the small- and medium size flower exporters have developed a combination of direct and auction sales, which has resulted in higher revenues for those companies and lower marketing costs. This trend is expected to further develop in the future. In most EU countries, the major flower volumes are sold by the specialty flower shops and by street vendors. The supermarket sales, which were expected to increase significantly in most EU countries a few years ago, remain rather stable in sales volumes of 3-15% of the whole market. The exception is UK, where supermarket sales of flowers are increasing steadily and also Switzerland, where supermarket sales represent some 30-55% of the total market.

The vegetable and fruit market is very different from the flower market. Food marketing in the EU has become sophisticated and highly integrated. Over the last 15 years a highly efficient distribution system has evolved, as the operating environment has become increasingly competitive. The changes to the distribution and retailing of food in Europe are quite revolutionary; the large retail chains, the hypermarkets and supermarkets, now dominate more and more of the EU market. This process is most advanced in Northern Europe where the supermarkets and hypermarkets control at least 70% of the grocery retail trade. This, in turn, has led to radical changes to the supply and distribution systems.

The traditional systems of suppliers feeding produce to wholesale markets that sold to local shops and traders, with the trade handled by a number of intermediaries, has been replaced by a close linkage between the retail chains and their suppliers. The position of the wholesale markets has been seriously

weakened. The present structure still requires intermediaries, but their roles are now no longer wholesaling and breaking bulk, but orientated towards a range of services:

- Chilled distribution across the country
- Controlled atmosphere storage facilities
- Pre-packing facilities
- Flotation systems for sorting
- Ripening facilities
- Blast chilling

Southern Europe lags behind in this process, but the changes are happening here too as the retail chains gradually build up a controlling share. The exporter must adjust to these changes. In order to succeed, the exporter must be able to supply the major retail chains, no longer dispatching produce to Europe for sale through the wholesale markets on a consignment basis. Exporters must work with importers capable of accessing the multiples as well as able to place product in the wholesale markets or sell to the food processors. The retail chains are gaining competitive advantage through the economies of scale in purchasing and through the efficiencies of their supply chain management.

Simultaneously, shopping and eating habits are changing. Supermarkets and hypermarkets satisfy the consumer demand for the convenience of buying the week's groceries in one shop rather than visiting a number of specialist stores. Further, less and less time is spent on meal preparation, and there is more emphasis on convenience in terms of prepared foods for home consumption, snacking and eating out. The fresh produce market may show limited growth in volume but the value is increasing.

2.4.3. **Regional and Middle East markets.**

The regional and Middle East markets are quite insignificant for the horticultural exports from Kenya. Only mango is exported in significant volumes to the Middle East, and presently accounts for approx. 50% of the mango exports. The total exports of flowers to the Middle East and the regional markets, especially South Africa, was approx. 1,5% in 1999 of the total cut flower export volume. Exports of vegetables were 0,4% and fruits 19% in 1999, and where the major export specie is mango to the Middle East. These markets may very well be more exploited in the future, but they represent very small markets at present. Saudi Arabia has restricted imports of Mango from Kenya due to the weevil larvae problem and if that could be solved it is expected that both export potential and profitability for the Middle East export market would increase significantly.

There is a distinct difference between the marketing of cut flowers and vegetables/fruits since cut flowers can be sold through the auction system in the Netherlands, whereas vegetables/fruits must be sold directly to importers. This means that in most transactions for vegetables/fruits the export price and the trade margin is known prior to the actual export takes place, whereas for cut flowers the price is, in general, not known until the product is sold in the Netherlands. This means that there is a certain risk involved in cut flower exports since the trade margin is unknown when consuming the expensive task of transporting the flowers to the Netherlands. There are approx. 120 regular exporters in the horticultural sector in Kenya but there is a significant influence from a few players in the sector.

2.4.4. **Cut Flowers.**

The main export product is roses accounting for approx. 65% of the total cut flower exports to the EU. Kenya is the biggest non-European exporter of cut flowers into the EU, and also the biggest non-European supplier of roses to the EU, followed by Ecuador, Zimbabwe, Israel and Zambia. The marketing methods between the above countries show distinct differences:

Marketing pattern from major non-EU suppliers of cut flowers:

	% to the Netherlands		% to UK		% to Germany		% to other EU countries		% to Switzerland	
	-95	-99	-95	-99	-95	-99	-95	-99	-95	-99
Kenya	60	64	10	22	24	8	3	3	3	3
Israel	64	72	12	5	13	9	7	13	4	1
Colombia	13	13	44	51	17	10	24	24	2	2
Ecuador	27	40	3	1	20	17	41	32	9	10
Zimbabwe	72	80	8	3	11	5	2	9	7	7

The above table shows the different market strategies for the major supply countries of cut flowers to the EU-markets and Switzerland. Kenya depends heavily on the Dutch auction system, but it has managed to stay rather stable on the Dutch market in spite of the declining German market and increased its exports to UK but remained stable on other markets. In 1995 a large share of the German imports were re-exported to the Netherlands for auction marketing and those re-exports have almost ceased in 1999. The increase on the UK market is partly due to the successful supermarket sales of pre-packs made in Kenya, ready labeled and with a vase life guarantee.

Israel, who used to have a very effective marketing organization back in the 19970's-80's, have lost their direct marketing force to a large extent and depend increasingly on auction sales.

Zimbabwe has by tradition mainly sold at the Dutch auctions, since Dutch agents introduced an developed the production in Zimbabwe and whose only marketing channel was the auction system. Zimbabwe has grown into an important cut flower export country over the years. They still rely heavily on Dutch agents, but the situation has changed over the years from being a situation where the exporters depended wholly on one agent for both technical assistance and marketing into a situation where agent commissions have been reduced significantly and an exporter can work with one or several agents.

When comparing the marketing system between Kenya, Israel and Zimbabwe on one hand and Colombia and Ecuador on the other, their marketing pattern is very different. The Latin American entrepreneurs come from a US trade tradition and don't rely on auction distribution. They act more like companies in other industries, i.e. they seek direct importers, and they seek firm market contracts at firm prices. They wish to know the market price and the profit level before they export. They have a much more widespread marketing strategy into all the markets in Western Europe. Colombia, which main product is carnations, has increased its efforts into UK, which is the last main market in Europe for carnations. Ecuador, which produces a very high quality of roses, has spread its marketing efforts in an almost perfect way. They export 40% to the Netherlands, but not through auction sales but merely through direct exports to wholesalers, and hence utilizing the Dutch distribution system well. They also have a direct distribution system into all the markets in Western Europe as have the Colombian exporters. This makes the Latin American flower exports to Europe very strong and they don't depend on daily variations on the auction market.

The Kenyan flower exporters will have to take the following aspects into consideration in the future:

- Assortment: There is a distinct trend among florists and traders in the EU to use a wider assortment of cut flowers. It will be increasingly important for flower exporters in Kenya to follow market trends and also to initiate new flower species to the markets. This will represent a major challenge to Kenyan flower exporters in the future. The nisches that have been exploited up to date are Zanthedeschia, Hypericum, Eustoma, outdoor roses etc., but there will be other opportunities provided that exporters in Kenya put their interest and focus on these matters. In the consultant's opinion, this issue is of utmost importance to the future of floriculture exports from Kenya.

- Marketing: The Kenyan exporter typically exports their produce to an auction in the Netherlands, which cost approximately 15-20% of the sales price. Furthermore, the products are sold together with Dutch products, which have not been packed and transported. The products from Kenya are 2-5 days older than the competing Dutch products and also packed in cartons, and which results in lower prices. The Kenyan flower exporters sell approximately 65% of their products into the Dutch market, mainly because of the safety and simplicity of selling there. However, the Netherlands is only responsible of 55% supply into the rest of the EU on average, which means that Kenyan cut flowers are over-represented at the Dutch auctions. Kenyan cut flowers, and especially roses and carnations should have a presence of 55% or less and which would be equal to the Dutch exporter's market presence in the EU. The rest should be supplied into the markets directly through direct exports, and which would give the following advantages:

  - Both the Dutch and the Kenyan flower would have been packed and transported.
  - Both origins would have the same handling time from harvest to reaching the client.
  - The costs of the auction and the margin of the buyer/exporter in the Netherlands would create a margin for the exporter in Kenya of some 30-40% in fob value.

In the consultant's opinion, Kenyan flower exporters will have to take some risks on the marketing issue in the future. The present marketing costs for the small- to medium sized flower exporter are too high and probably not viable in the future. However, Kenyan exporters have been more successful in direct marketing than most other African countries, but not by far as successful as the exporters from Latin America. There are logical reasons for this, such as that the African cut flower exports are mainly targeted for the mass consumption market, whereas the Latin American exports are targeted to the upper level of the market. The main reason, however, is the management skill of small to medium size flower export companies in Kenya.

2.4.5. **Vegetables and Fruits.**

The vegetable and fruit export sector function in a very different way than the floriculture sector. The trade is based upon exports on fixed prices and their main market is the supermarket chains in the UK. The UK market is responsible for approx. 53% of the vegetable imports, followed by France, Germany and the Netherlands. The major export market for fruits is France, followed by UK, the Netherlands and Germany. However, the sector has to a large extent focused on the UK market and the penetration into the other markets is poor, apart from for beans and avocados. Fruit exports have penetrated the Middle East rather well for mangos, but restrictions on mango imports to Saudi Arabia due to a problem with live weevil larvae in 30-40% of the mango stones, has put a pressure on the prices in Dubai, which has negatively affected both export volumes and profitability. The problem with the weevil larvae could most probably be solved through identifying a sticky compound and/or a repellent to paint at the trunks of the mango trees during the flowering season, and hence preventing the weevils to climb the trees. Mr. Haller at Baobab Farm should be contacted to solve that issue.

2.5. **Competitiveness of the Sector.**

2.5.1. **Advantages.**

Kenya has managed to become a major supplier of horticultural products into the EU markets over the last decade, and unless one or several of the threats presently facing the sector are implemented, Kenya will most probably defend its leading position and further strengthen it. The main reasons for Kenya's strong position are:

- A very strong and well organized private sector, which has over the years managed to implement a vertical structure of production, post-harvest handling, transport to the target markets and the marketing function. This is true for both the floriculture and the vegetable/fruit sector. Of the

different product groups, the fruit sector appears to be most vulnerable to changing market conditions/demands due to the fact that this sector does not control the production, neither from a quantitative aspect nor from a traceability/MRL aspect. However, the main export species, avocado and mango, are not subject to any chemical application during production.

- Absence of government involvement and the absence of a difficult regulatory framework.

- The variety of climates available in Kenya together with the availability of labor and a long history of producing horticultural products for export.

- A rather good infrastructure for road transports within the main production areas and good local supplies of inputs, implements and maintenance, which has been built up over the years, especially when compared to competing countries.

- Access to good air cargo handling facilities and good airport services in Nairobi. Sufficient air cargo space availability to major destinations and working under competitive business conditions.

- A rather simple export-documentation procedure and access to imports of inputs without any serious delay in procedures.

- Incentives for exporters concerning exempt of import duty on most investments and inputs and repayment of VAT for export companies.

2.5.2. **Disadvantages and threats.**

The above major competitive issues are quite important and have been major catalysts to the present state of the horticulture export-sector. However, there are also negative factors and major threats facing the export-sector and those are:

- There is a general shortage of water for irrigation purposes in Kenya, and this is a major constraint in many areas for an expansion of the sector.

- There is a general shortage of skilled labor and well-trained agronomists as well as management level staff. The companies train their own staff since well-trained staff is not readily available. This is acceptable for the large companies, but is a constraint for the small to medium size exporters in the whole sector.

- There is a realistic fear that existing taxes and fees will increase or new ones will be imposed.

- Contracted farms and out-grower groups are not exempt of VAT for inputs in spite of the fact that their products are exported.

- Areas for improvement: Lower air freight charges and improved cargo capacity to some destinations such as London, Paris and Frankfurt, improvements of the infrastructure (telephone, power supply and country roads), product quality and market information, especially among the small to medium size exporters.

A number of major threats are facing the industry as well, which may put the whole sector at risk within the next few years unless they are successfully negotiated. The consultant could not get any indication as to the probable success of such negotiations during his visit. The threats are:

- That the EU/WTO/Lome agreement will be in effect from 1.1.2008, from which date Kenyan exports will pay import duty to the EU markets. The present import duty to the EU is 20% (1

June- 31 Oct.) and 14,2% (1 Nov.-31 May) for flowers and the present import duties for vegetables/fruits are presented in the table below. All import duties are payable on the CIF value. The profitability of the Kenyan horticulture export sector has declined dramatically over the last 10 years. The present profit margins within the flower sector is approx. 10-15% for very well managed companies with very well defined production/post harvest handling/transport/ marketing systems, but that knowledge is only present in a few large companies. The small- to medium size export sector shows a range from good profitability to red figures. In the vegetable sector, the average profitability is approx. 3-7% and in the fruit sector approx. 10-15%, depending on product group and how the company has solved the above issues of production etc. There is reason to believe, that the import duty can not be assimilated within existing profit margins, and that this may seriously harm a large part of Kenya's existing horticulture exports and that many companies will move to northern Tanzania, Uganda or other countries in order to avoid the import duty. Duty free imports to the EU will be effective only from LDC countries after 2007, and LDC countries in the region are Ethiopia, Lesotho, Malawi, Sudan, Tanzania, Uganda and Zambia.

Present Import Duties in the EU for Vegetables and Fruits:

Tariff Code	Product	Dates	General Tariff	ACP	LDDC	GSP
0708.10-00	**Peas**	01.01-31.05	8%	FREE	FREE	6.8%
		01.06–30.06	13.6%	FREE	FREE	10.2%
		01.07–31.08	13.6%	FREE	FREE	11.5%
		01.09–31.12	8%	FREE	FREE	6.8%
0708.20-00	**Beans**	01.01–30.06	10.4%	FREE	FREE	8.8%
		01.07–30.09	13.6%	FREE	FREE	11.5%
		01.10–31.12	10.4%	FREE	FREE	8.8%
0708.90-00	**Other Legumes**	All Year	11.2%	FREE	FREE	9.5%
0709.20-00	**Asparagus**	15.08–15.01	10.2%	FREE	FREE	8.6
		16.01–31.01	10.2%	6.1%	FREE	8.6
		01.02–14.08	10.2%	8.6%	FREE	8.6
0709.60-99	**Capsicum**	All Year	6.4%	FREE	FREE	4.4%
0709.90-60	**Sweet corn**	All Year	Euros9.4/100/kg	Euros9.2/100/kg	FREE	Euros9.4/100/kg
0709.90-90	**Other Vegetables (inc.Asian veg)**	All Year	12.8%	FREE	FREE	8.9%
0804.30-00	**Pineapples**	All Year	5.8%	FREE	FREE	4.9%
0804.40-00	**Avocados**	01.01-31.05	4%	FREE	FREE	1.4%
		01.06-30.11	5.1%	FREE	FREE	3.5%
		01.12-31.12	4%	FREE	FREE	1.4%
0804.50-00	**Mango, Guava Mangosteen**	All Year	FREE	FREE	FREE	FREE
0807.19-00	**Mangoes**	All Year	FREE	FREE	FREE	FREE
0807.20-00	**Papaya**	All Year	FREE	FREE	FREE	FREE
08 1090 40-10	**Passion Fruit**	All Year	FREE	FREE	FREE	FREE
08109085	**Other tropical fruit**	All Year	8.8%	FREE	FREE	6.1%

Prepared from the Tariff Schedule issued 01.07.01

If the preference is lost to Kenya, there is a potential impact on the legume exports. Here Kenya enjoys a significant advantage over other potential suppliers paying the full tariff. If this advantage were lost

while other potential LDC suppliers, such as Ethiopia or Gambia, Tanzania, Uganda or Zambia, maintained their preference Kenyan exporters would be at a significant disadvantage. in this sector. Note, however:

- All tariffs are being gradually reduced. The advantage of the preferences is therefore diminishing.
- Relatively few companies control the majority of Kenyan exports. Their capability is so far advanced that they could replicate the production in other territories more efficiently than any other existing or potential competitors. The choice of production location for such operations is not simply an issue of tariff but a whole suite of considerations from agronomic, through fiscal to logistical.
- The impact on Kenyan output of any change to the tariff structure therefore rests in the hands of a few companies and their selection of production location.
- The smaller players will, of course, be threatened by these developments in tariff structure, but their concerns are likely to be more immediate than the seven-year timescale of the evolving negotiations.

The introduction of import duty tariffs would result in the following fob cost increases:

	Cut Flowers, 14%	**Cut Flowers, 20%**	**Vegetables, 11% (average)**	**Fruits, 4% (average)**
Selling price, auction	100	100	---	---
CIF value (deducted with 20% auction cost for flowers)	80	80	100	100
Import duty	11,2	16	11	4
Transport cost	30	30	65	65
Fob value	38,8	34	24	31
% duty on fob value	29%	47%	46%	13%
% duty on present fob value	22%	32%	31%	11%

As can be seen in the table above, the effects of the import duty will be very serious for most of the horticultural export sector.

There will be negotiations between Kenya and the EU with the target to get the import duty lifted also after 2007. The problem for the sector is primarily to evaluate the probable success of those negotiations, and secondly to evaluate the effects of the time schedule involved:

a. The negotiations will be successfully conducted and the export sector will in 2003 have guarantees of duty free exports to the EU after 2007. In this case, the sector will continue to prosper and there probably will be an annual volume increase of exports of approx. 4-7% annually for flowers, 7-10% annually for vegetables and 2-4% annually for fruits. The whole sector is considered to be very strong and with a determined policy to remain competitive over the next ten years.

b. It the negotiations will not be productive within the next 1-2 years, a number of things are, most probably, going to happen. These all incorporate negative effects for Kenya as a horticultural exporting country and are identified below:

   - In the flower export sector, an investment can be paid off in 3-5 years. It can be expected that investments within that sector will decline significantly in 2002-03. The vegetable sector will have about the same parameters for investments.

   - The financial institutions will look more closely at the future situation of the sector and long term financing will be more difficult to obtain. The closer we get to 2008, also short term financing will probably become increasingly difficult as well.

- By the year 2003-4, a lot of the exporters will probably start looking for alternative production areas within the LDC countries, and for the Kenyan export sector, that means mainly Tanzania but also, to some extent, Uganda and other countries. The extent of the transfer of production areas will be dependant on a number of issues:

- If the government of Kenya will allow the existing packing and handling companies of both vegetable/fruits and flowers to be considered as Export Processing Zone units, free of VAT. This would enable the companies to operate their packing and processing functions in Kenya with produce from Tanzania and without losing their non-tariff status in the EU.

- The above effects on investments would, over a period of time, result in a decline in exports. The decline in supplies to the markets will, most probably, increase prices but it is not expected that the price increase would compensate the import duty fully. However, a positive price development would increase profitability and hence production in competing LDC countries, which would affect the prices negatively. This whole procedure may take some 4-5 years but is very likely to happen. The unknown factor about this scenario is whether neighboring countries will accept this influx of companies without implementing other restrictions and/or taxes, which will counter the import duty effect.

- In order to achieve a price increase of 15-20% in CIF value, the production of flowers would most probably have to decline with some 30-40%. It is expected that the whole small- to medium size sector will start to experience problems from 2004-05. The larger companies will be less affected on short term, but it is likely that they will relocate the whole or part of their production and the sector will probably be much smaller within 3-4 years after 2008. The situation for vegetable/fruit exports is a bit different, because the all shipments are on firm orders. It is likely that the fruit exports will come to a halt, due to competition from Israel and from Latin America. It is also likely that the vegetable exports would loose the bean and pea exports to other countries such as Egypt, Ethiopia, Burkina Faso etc. due to lower prices from those countries. For especially pre-packed vegetables and salads, Kenya may probably be able to recover the import duty because of the fact that installations are in place as well as the technical know-how on short term, but on long term the profitability within the LDC countries will be very tempting for companies to start operations there. On the whole, the sector is probably looking at a decline in vegetable exports of 30-40% on short term, i.e. up to 2010-12, but on long term an exodus of the industry from the country.

- A decline in export volume from 2004-05, will result in excess air cargo space and hence less cargo space available, and it is likely that exporters will not get the space they require and on the days and to the destinations they require. This will result in more unrest from the part of the exporters. This situation will accelerate with time.

The second major threat to the horticulture export sector is the Horticultural Bill, which many exporters in Kenya sees as an even larger threat than the import duty to the EU. This is largely due to the fact that the Bill has a much closer time perspective than the import duty, and also because many exporters expect that the import duty will never be implemented, whereas the Bill can be implemented on short term.

The Horticultural Bill contains a significant expanded power for HCDA in the regions of technical assistance, research and control functions, which will be paid by the private sector according to the costs of the operations. The private sector claims in principal that these activities to be undertaken by HCDA are already undertaken by the private sector. The private sector can manage these functions better than HCDA, that they don't require these services, and that it will only increase their costs and not result in increased export earnings to pay for the costs.

At the same time, HCDA is launching an out-grower scheme, with the assistance of Japanese funding, in order to collect, handle and sell produce from out-growers to the export and/or canning

sector. HCDA is also empowered to act as an exporter for the produce. Initially HCDA has contracted some 400 out-growers of beans into this project. The joint reaction from the private sector is that HCDA can not function both as a regulatory body and as a competitor. None of the issues of the bill seems to be acceptable for the private sector. Furthermore, the bill has triggered a suspicion that this is the first step towards increased government control of the sector.

Other concerns from the private sector are:

- That there will be too many label systems implemented in the EU markets, which the exporters will have to join, which will increase the costs rather significantly. Most of these label systems also introduce regulations, which only have to be followed by Kenyan (and other non-EU suppliers), and which will burden the exporters with costs that are not experienced by the European growers. The EU will launch a new, joint code of practice, EUREGAP, in September 2001. Hopefully, the EU will impose that this is the only label required, and that its regulations are required also from the European growers, as well as accept that the Kenya CoP is conform to the requirements of the EUREGAP.

- EU will impose stricter quarantine inspections, which may result in disinfecting of shipments with methyl bromide, and which will have a negative effect on quality and vase life but also may delay clearance of the shipment significantly. It may also involve increased testing of vegetable- and fruit shipments. The cost for the new system will be imposed on the exports directly. It is estimated to cost the flower export sector 300.000 Euro per year in additional costs, and possibly the same for the vegetable/fruit sector. The cost will be invoiced in Europe, but the cost will reflect on the sales price and hence, be returned to the exporter's price. The market price as such is unlikely to change because of this new cost.

- Flower growers in Kenya are complaining about high costs for planting material, which is often caused by royalty charges. However, there is not much to do to lower the cost of planting material in general. In order to facilitate the adaptation to changing market preferences, it was suggested that KFC should negotiate a new royalty system with especially rose breeders, where the growers paid an annual fee instead of one time fee when buying the plants. The annual fee should be based on an expected life span of 6-7 years for the plant. This would facilitate the expansion of a project, reduce capital needs and facilitate changing into new, more profitable varieties. It seems also that rose plants propagated as cuttings instead of grafted plants are doing quite well, even though it remains to be seen if the life span of those plants are comparable to the grafted plants. Rooted rose cuttings would significantly reduce investment costs of a rose farm.

2.6. **Regulation Framework.**

In principal, the standards and basic minimum grades of horticultural products exported from Kenya are set by the importing countries in the EU and by the customers. The supermarket chains in the UK have been spearheading the development of very strict regulations for vegetable/fruit imports, and they monitor the implementation of those regulations closely through control visits to the exporters audited for their systems. There are standards set for imports of horticultural products into the EU (see app. 3 and 4). A National Code of Practice has been developed in Kenya, which is being implemented, and which is harmonized to most label systems in Europe. Accreditation to the CoP will become a necessary instrument to obtain an export license in Kenya in the future. It is of utmost importance that the CoP will be accepted by the various label systems in Europe, especially the new EUREGAP, in order for the Kenyan exporter to abide by only the CoP and not have to join a large number of label systems.

KEBS has set standards for certain fruits and vegetables through its technical committee but there is no evidence that these are being implemented and there is doubt whether there should be such standards. The only important issue for the exporter is that his exported quality is conform to his

customer's requirements without taking any local regulations into consideration. The standards set for the local market are mainly according to size and that seems to be adequate according to local demand.

The current practical standards and grades are described below.

- Phytosanitary standards and grades: These are set by the importing country and are mandatory and there will be a more stringent application of these regulations in the future by the EU quarantine inspection. This is still under negotiation, but the new regulations are likely to be imposed in 2002, and which will increase the costs of importation from non-EU countries. The MRLs regulations are mandatory for the whole sector and will require an upgrading of analyzing facilities in Kenya at KEPHIS for small to medium size exporters to follow up on these issues.

- Quality: Grades and standards that relate to quality, such as size, color, taste, appearance etc. are set by the buyer and vary from buyer to buyer and over time. These standards are mandatory for each individual exporter and depend on market preferences and trading practices.

- Code of Practice and Code of Conduct: Standards that relate to social and environment issues as well as business ethics are becoming increasingly important. These standards have been voluntary in the past but are becoming mandatory, and will be mandatory in Kenya in the near future through the implementation of the National CoP. This will probably result in preventing some small exporters from operating.

- Organically Produced Fruits/Vegetables: There is an increasing demand for these products in the EU, and there are certifying bodies, such as IFOAM, that will inspect and certify an individual grower/exporter. The criteria for certification are totally controlled by the importing countries.

- An exporter in Kenya will require an export license, which is issued by HCDA. The license has been quite easy to obtain at a cost of Ksh 5.000 for a three-year license. HCDA is proposing increase he fee to Ksh 25.000 for a one year license and they will also follow up on the exporter's compliance with the Code of Conduct and may, in the future, refuse to give an export license to exporters that do not comply with these conditions. The sector is strongly opposed to the increased fee, and considers this to be another instrument to collect more funds for HCDA. They would prefer the existing charge and a simple register of exporters instead of a license and which could be maintained at the existing fee. The increased market demands will automatically exclude non-serious exporters from exporting.

There are standards set for seed, but the reality is that the grower will depend totally on his connection with the seed supplier. Attempts to claim from the supplier on the grounds that the seed did not conform to Kenyan standards will be very lengthy and most probably fruitless. The standards set concern purity of the seed, max. weed content, min. germination capacity, max. moisture content. In general, these issues are a solved between the seed supplier and the client, since it is impractical to conduct tests prior to the actual sowing of the seed for practical purposes.

There are also standards of packaging. Kenya has an intrinsic advantage over neighboring countries that it has a paper and board manufacturing industry, based largely on trees grown locally on a renewable basis. There are also several packaging factories in Kenya, a situation which has created a competitive situation and which has resulted in declining packaging prices over the last few years. However, the packaging industry in Kenya is protected by a 45% import duty and packaging material in Kenya is still quite expensive. Packaging has been a very big issue for Kenyan exporters of horticulture produce. There was a rather big study made by PriceWaterhouseCoopers in 1999, which stated that most of the problems related to Kenyan cartons were to be found in the airport

handling system and not caused by the quality of the packaging. The standards for Kenyan packaging are to be found in the directives from Kenya Bureau of Standards, KS 03-948 of Jan. 1991. The EU regulations covering the basic cartons etc. state that:

- The materials used should be clean, new and harmless to food.
- There should be no print on the internal surfaces in contact with food.
- The packaging should provide adequate protection for the content
- No straw should be used as packaging material on phytosanitary grounds
- The heavy metal content of the cardboard should not exceed certain specified levels (this is rarely a problem)
- Re-cycling of packaging is mandatory in the EU, and cartons should be possible to re-cycle without extra cost. There are extra charges for re-cycling waxed or plastic filmed cartons.

In principle, the floriculture exporters use either what is known as the Kenyan box, or a larger box, known as the Zimbabwean box:

- The Kenyan box measures 100x33x20 cm, and with a volume weight of 12 KGs, but with a real weight of 10,5 KGs for flowers.
- The Zimbabwean box measures 100x50x20 cm, and with a volume weight of 17 KGs but a real weight of 13,5-14 KGs for flowers.

Cartons used for vegetable/fruit exports are more complex and with a greater variation in sizes and appearances. The traditional bean box of 2 KGs is widely used, and also a larger box of 4 KGs.

The important issue of the packaging problem is that the construction is telescopic, that the cartons are properly assembled and that the cartons are stacked in proper piles on the pallets. If this is done properly, the Kenyan cartons are quite good and prevail well during the transport, provided that they are stored in a low humidity environment. There are a number of comments from the market side on the presentation of Kenyan products. Major comments are that the packaging is dull, old fashioned, ordinary, basic or cheap. The present packaging for most horticulture products from Kenya is based on re-packing in the target markets and not for presenting the products directly to retailers or consumers. In the consultant's opinion, the above comments are correct, but it is doubtful that Kenya would be more competitive on the markets with a more expensive packaging presentation and if that extra cost would be recovered in higher prices. However, some markets and some importers would certainly react positively to an improved packaging and presentation of the products and which would, eventually, result in higher prices or strengthen business relations with that market or importer.

A major complaint is labeling, where many exporters fail. The minimum legal requirements for export into the EU include

- Quality grade and size
- Nature of product (such as beans) and variety
- Name and address of packer and/or exporter
- Country of origin
- Net weight

Supermarket buyers often have additional demands such as

- Supplier/traceability code
- 'Sell by', 'Use by', Best before' or 'display until' dates
- A bar code for stock control in the supermarket depots
- The name of the supermarket

- Often pricing is also done prior to shipping the products

Often the inner labels will contain information concerning storage and cooking instructions, serving suggestions, nutritional information etc. Some pre-packs are very stylish and quite expensive but the main pre-packs used include poly-bags and over-wrapped trays.

2.7. **The Status of Exporters Associations**.

There are two exporter associations in Kenya, Kenya Flower Council (KFC) and Fresh Producers Export Association of Kenya (FPEAK).

2.7.1. KFC was formed in 1996 by the then five most important flower exporters in Kenya and was a result of the ineffectiveness of FPEAK to represent their interests. The association has, over the years gained a very strong position as a negotiating and lobbying factor in Kenyan internal and external policies. It is based on a voting power by size and, therefore, represents very much what the major players in the flower export sector find important. KFC has a rather small secretariat and focus on the relations with the government, commenting on regulatory instruments introduced by the government or its parastatal organizations and significant marketing activities through Kenya Flower Days in the UK and the Netherlands. It is considered as a stronger organization that FPEAK. KFC is financed through a cess per ton exported produce from the members.

2.7.2 FPEAK was developed from HCDA back in 1975. It was targeted to represent the whole horticultural export sector and was financed through a cess collected by HCDA and transferred to FPEAK of Ksh 0,05 per exported kg. Membership was mandatory for all exporters of horticultural products in Kenya. The mandatory membership was lifted in 1995, and the association became dormant for various reasons, which is why KFC was initiated. FPEAK has survived many changes over the years, but has not been able to fulfill its mandate. However, FPEAK is presently being transformed into an organization focused on the vegetable- and fruit sectors and into an organization similar to KFC with voting power related to size, and which means that the big stakeholders in the vegetable/fruit export sector will take direct interest into the organization. At present, it seems that FPEAK will become as important a negotiating partner in Government and international negotiations as a representative for the vegetable/fruit sectors as KFC has become for the flower sector. In addition to the above, KFC and FPEAK is working closely together and do not seem to compete with each other as was the situation previously. This change is to a large extent a result of USAID's involvement with FPEAK in the past.

2.8. **The Status of Shipping Possibilities from Kenya**.

Freight charges represent the single most important cost for the horticultural exporters in Kenya. Freight rates vary with the exporter, and depend especially on size of shipment, cargo composition, shipment schedule, destination and negotiating power. It is obvious that a small to medium size exporter has less chances of achieving a competitive cargo rate than a larger exporter, who can guarantee minimum volume and regular shipments. This has created a situation where the small to medium size exporter is not fully competitive to the larger exporters in the target markets and the small to medium size exporters are more vulnerable to price fluctuations in the target markets.

In terms of volume, the most important means of exporting fruit to Europe is by sea, whereas flowers and vegetables have to be airfreighted. Costs are substantially lower in sea freight and the penetration of a number of lines of fresh produce into the European market has had to wait on the development to technology for shipping by sea. Thus, the markets for mangoes, litchis and papayas have expanded as prices have fallen through sea freighting.

A number of products, however, are too perishable to send by surface transport and airfreight is the only means of export. In these cases freight is the biggest single cost associated with the production and export of the product and the availability of freight and the relative cost, in comparison to other producers, will constrain a new project.

There are a number of advantages to air freighting:

- Speed is not only essentially for the highly perishable products, but may also achieve a premium price in the market for delivering higher quality products such as mangoes or pineapples.
- Smaller volumes can be handled. Usually exporters air freight on the basis of a pallet or air cargo container price where as the minimum unit for sea freight is the 20-foot container. Real savings are only achieved in sea freighting when hold space rather than container loads can be booked, and which boats are not available in Kenya but available in Central America.
- Airfreight may give early access to a market right at the start of the season when premium prices are available.

As regards the cost of air freighting only the highest value produce can carry the cost involved. The table below gives some comparative costs between the important competitors to Kenya during peak season:

From	Rate US$/kg	From	Rate US$/kg
Kenya, Nairobi	1,45-1,65	**Egypt**	0,70-1,00
Kenya, Mombasa	1,10-1,30		
Tanzania	1,50-1,60	**Israel**	0,60-0,90
Zimbabwe	1,55-1,65		
Zambia	1,30-1,50	**Bangladesh**	1,60-1,75
		India	1,30-1,70
South Africa	1,57	**Sri Lanka**	1,50-1,70
Ghana	0,70-1,00	**Thailand**	2,00-2,40
Gambia	1,10	**Ecuador**	2,40-2,90
Senegal	0,99	**Guatemala**	1,60
Burkina Faso	1,07		

Source: Accord Assoc. estimates and interviews

These rates are indicative only. Tariffs change and individual exporters usually negotiate their own rates according to volume and seasonality of traffic. The table does however clearly indicate the comparative advantage of West Africa over East Africa.

2.8.1. **Nairobi.**

The present cargo capacity at Nairobi airport seems adequate to the requirements of the exporters. However, there seem to be a need for increased cargo space to mainly London, Paris and Frankfurt. The packing centers at the airport are mainly built by the forwarding agents and the cargo handling equipment from the cargo/palletizing centers to loading the aircraft are fully modern and suitable. The airport in Nairobi is presently equipped with a very functional service for the horticultural sector, all achieved through the private sector in Kenya. When the consultant discussed with the cargo handlers and the authorities, there were no complaints about delays in documentation, quarantine handling or other issues. The following is the cargo space available in the chartered aircrafts for the 2001-02 export season:

DC10 – 62-67 tons, 8-11 per week, totally 520-715 tons per week.
MD11 – 75-80 tons, 7 per week, totally 560 tons per week.
747-200 – 80-90 tons
747-400 – 100-110 tons, 11 per week but 7 via Johannesburg, totally 860 tons per week.
707, DC8 – 40 tons
767 – 53 tons but for flowers 35-40 tons, 2 per week, totally 80 tons.

The above figures gives a total space availability on chartered aircrafts from Kenya of about 2.020-2.215 tons per week plus the cargo space in regular flights for the 2001-02 export season. The following aspects of the J. Kenyatta airport should be taken into consideration when judging air-cargo rates:

1. Landing costs and navigation costs at J. Kenyatta airport are US$ 3.054 per flight, and this cost is higher than most airports in the region (approx. 30% higher than KIA in Tanzania).
2. Fuel costs are similar to those in the region (presently US$ 1,08 per US gallon). However fuel costs are cheaper in Khartoum and in Tripoli, up to 20-40% cheaper, and some cargo flights land in those cities to refuel.
3. A very important factor for the cargo rate is if the aircraft has an incoming freight as well or if the cost will be based on a return flight. The south bound loads will always depend on the needs for importing materials and traditionally the trouble spots in Africa have provided the most return flights.
4. The cargo rate applied will to a large extent depend on the percentage of the cargo that can represent more expensive rates and/or with a good density rate.
5. Some major exporters in Kenya use returnable packaging material, and which provides a certain southbound cargo. If the aircrafts are leased on return flights, the south- bound load would be almost free of charge, and which makes this system profitable.
6. It is unlikely that a grower/exporter in Kenya, apart from the biggest exporters, would operate his own chartered flights, in order to achieve a cost advantage. In the consultant's opinion, the only way to achieve a competitive cargo rate for small to medium size exporters is to act as a group, guaranteeing a certain space, i.e. 20-30 tons three times per week, and negotiate from this point of strength. This would most probably result in a 7-10% saving on freight costs.
7. General cargo rates are considered to be competitive even if the exporters would like to have access to lower rates. The present rates are for flowers, approx. US$ 1,60-1,65 per kg in the peak season and, depending on the agreement down to US$ 1,45 per kg in the low season. Fruits and vegetables pay less or approx. US$ 1,45-1,55 in the peak season and US$ 1,25-1,35 in the low season. The chartered cargo planes require a balance between vegetable/fruit exports and flower exports in order to be able to load the air crafts in an optimal weight/volume capacity, about 50% of each product group. The wide-bodied aircrafts combined with a good ratio on volume/weight has resulted in a pure weight rate from Kenya also for flowers. The flowers used to be charged on volume rate, which for the Kenyan carton is 12 KGs and for the Zimbabwean carton is 17 kg. The actual weight for flowers is approx. 10,5 and 13-15 kg respectively, and this has resulted in an effective cargo rate reduction from only a few years ago.

On the whole, the study shows that the cargo services and the cargo rates are competitive to neighboring countries and that a decline in cargo rate would demand either an increase of more expensive cargo and/or a significant commitment from the exporters on cargo volume guarantee.

2.8.2. **Eldoret Airport.**

Eldoret airport has not been very successful in attracting export volumes from the producers of horticultural products in the area, in spite of the fact that there are quite a number of exporting companies within a reasonable distance. The major problem with the airport is that the altitude is quite high, 6.800 ft, and that the strip was made short due to lack of funds to finalize the original plans. That means that the strip is 500 m short to allow for full-loaded cargo aircrafts of the series 767-747 to service the airport. These air-crafts will have to take off with 20-40% less than their capacity and these air-crafts would have to fill up their load in Nairobi or elsewhere.

The regular aircrafts servicing the airport are 35 seated airplanes twice a day. The cargo warehouse capacity is 7000 sq.ft and the cold storage capacity of 4000 sq.ft in two compartments. Palletizing facilities are non-existent and aircraft loading facilities are rudimentary. Landing charges are about

25% cheaper than Nairobi, but navigation charges are the same. Fuel is slightly more expensive than Nairobi. The met station has old computers, no power back up and is not well connected to the navigators. There are no existing plans to either expand the strip or the cold stores/warehouses. Incoming cargo has been about 300 tons per week lately. 747's from United Arab Emirates with electronic equipment for local sales and neighboring countries. These flights are not expected to be regular. No 767 have ever landed at the airport. The management of the airport seemed fairly good

Cargo possibilities:

1. French beans, snow peas, sugar snaps, passion fruits, summer flowers and roses.
2. Tradewinds has suggested flying 20 tons to the Middle East starting from 20th July.
3. Exporters would like to use the airport if it is competitive in rates and efficiency
4. Tonnage of between 26-30 tons weekly is realistic from the zone but too small for a regular cargo service to the airport.
5. There are some new farms /expansions being implemented in the area:
    - New farm coming up 30 km away up to 10ha rose farm in planning stage
    - There has been two new farms in the last 2 years
    - All the flower farms have either expanded or are soon going to.
6. Small growers can generate the tonnage consistently only with empowerment in groups and general organization.

However, the growers in the area will require supplies from Nairobi and most of the trucks supplying exports to Nairobi will carry return inputs of cartons, fertilizers, chemicals etc. Some are also working with other exporters and transport their cargo to Naivasha or Nakuru only. Some will have to utilize the handling facilities at Nairobi airport to combine shipments from other units. Due to the short strip in Eldoret and due to the present structure of the export sector, it is unlikely that the airport in Eldoret will function as a direct export point of horticultural exports from Kenya, but it may serve as a feeding airport into Nairobi, provided that the charges would be less than road transport charges.

2.8.3. **Mombasa Airport and Port.**

a. Mombasa Airport: Kenya Airport Authority manages the airport handling and there are no private forwarding agents handling facilities at the airport. The facilities are adequate for the present volume, but there is a problem of capacity during peak seasons in January-April, mainly due to the declining tourism. Mombasa airport is only serviced by tourist flights and flights to Nairobi, and presently there are some 12-13 aircrafts landing at the airport per week. Approx. 8-10 flights accept cargo, each one of 15 tons, which means a total capacity of 150 tons maximum per week. However, the attendance of tourism flights decline in the peak export season, when cargo space need is at a peak. The freight rates are lower than the rates in Nairobi, partly due to only high-density cargo leaving Mombasa but also due to the fact that freight is an added value product for the tourism charters. In total, the airfreight out of Mombasa seems to work well and according to the present requirements. There is clearly room for a cargo plane service from Mombasa to both Europe and the Middle East to service the industry. However, it is unlikely that such a service would be cheaper than the existing service from the tourism charters. If the exports by air were to increase from the area, cargo charters would have to be brought in and which would, most probably, increase the present rates.

   When the cargo space is not sufficient from Mombasa during the peak season or when the aircrafts don't land at the requested destination, the exporters have to use Nairobi. KQ will charge US$ 0,37 for the transfer to Nairobi, and this rate is too high compared to road transport, which means that all transfer goods are transported by road to Nairobi. Cargo rates with KQ to Johannesburg are US$ 0,70, SAA US$ 0,52, to Dubai: KQ 0,90/kg, Emirates US$ 0,55/kg. The

freight rates with KQ seem set to avoid any freight on those routes and to discourage Kenyan exporters to use KQ for cargo.

b. Mombasa Port: The port in Mombasa is a complex issue, since regulations and framework change rapidly and without prior notice. At present, the Kenya Port Authorities has implemented a regulation that handling of goods have to be done by the KPA's equipment and personnel, and, since they have inadequate capacity for handling the goods, port transfer time has increased from one day to 4- days. Private forwarding agents may use their own equipment to speed up the transfer, but they are liable pay KPA's costs anyhow. There is a maximum transfer time limit within which fresh products must be handled to be acceptable for the markets, and KPA's new regulations are harmful for the horticultural export sector.

The port facilities for plug-in reefer containers and back-up electricity services have been improved and there are no longer any problems in this respect. There is also a direct transfer to Marseilles in France, which means that a reefer container with fruits can reach Europe in 14-16 days including transfer at both Mombasa and Marseilles. However, 4-5 days of that transfer time is spent in Mombasa due to the new regulations. Otherwise, the transfer would be 10-11 days and the Kenyan exports of Avocado and Mango would be quite comparable to the exports from mainly Latin America. There are also weekly connections to the Middle East, but the reefer containers are more difficult to recover from that area.

Present freight rates from Mombasa to Middle East (Dubai) and Europe are for 20-foot reefer containers US$ 2.200 to Dubai and US$ 2.800 to Europe. These rates are too high in the consultant's opinion, and should be reduced with approx. 25-30%, provided that the shipments were regular.

2.9. **Pesticide Management and Framework.**

Pests and diseases are one of the most important factors in the production and exports of flowers, fruits and vegetables and often account for significant losses in the field as well as during post harvest handling.

2.9.1. Legislation in Kenya.

All legislation is under the mandate of the Pest Control Products Board.

1. The introductions of pesticides to Kenya: All pesticides introduced from outside the country will have to be approved of the Board. To get an approval from the Board, the applicant will have to bring in experimental samples, and to submit data supporting efficacy, toxicological and environmental data on the product. The procedure may take up to 2 years.
2. Immediately after approval comes a testing phase, which is obligatory carried out at the agricultural centers of the Kenya Agricultural Research Institutes. However, there is a more open and practical approach to these issues and private companies as well as consultants can carry out the tests and provide results to KARI. Generally, the procedure will take 6-12 months
3. Registration: There are three types of registration, temporary, provisional and full.

   - Temporary is supposed to be allowed only in emergency case and in cases where the trader is to register for only one year. Presently, and due to a backlog of work, quite a few pesticides have been temporarily allowed.
   - Provisional is not a legal provision but merely allowing the product to be traded while the Board is waiting to meet and discuss. Most of the products without patents are in this category. The problems for this category are that the Board in general lacks sustainable data to support the product to be registered.
   - Full registration status is a 3-year guarantee to trade the product. This can be obtained when a product meets with all the criteria in Kenya and will take a minimum of 2 years to discuss and approve and can be renewed for 2 years at an additional charge.

Fees for pesticide trading in Kenya:

Fees charged:	
Introduction per formulation	Ksh 10.000
Temporary per formulation	Ksh 10.000
Provisional/Full	Ksh 30.000
Renewal for 2 years	Ksh 20.000
Imports and Exports:	
Less than 1 mn Ksh	Ksh 2.000
More than 1 mn Ksh	0,2% of value.

There are general complaints that a registration in Kenya is a longer process than in neighboring countries in the region, since they have less strict regulations on these matters.

2.9.2. For pesticide application, the situations, in general, is as follows:

- Big growers/exporters of vegetables are very serious in their use of pesticides regardless of price. They also have their own training programs and or use someone to do the training and dictate to their out-growers what to use and when.
- Medium size growers/exporters are also very serious on choice and use of chemicals, but the price issue seems more relevant for this group. They dictate to out-growers what to use and when, but they often have less control over usage.
- For small farmers and out-growers without a contract with an exporter, the control is much less. They normally know or have directives of what to use and when, but there are very little control of what is happening. These growers sell often to brokers. This sector represents a real risk, because traceability is often lost and it is expected that MRLs can not be controlled in this market sector.

2.9.3. General Problems of Pesticide Use in Kenya.

- The wide range of chemical products available in Kenya makes it difficult for small to medium size farmers to choose the correct product. The big producers/exporters have sufficient technical expertise to make the selection and apply the product properly. There is also little understanding of the classification of a product in Kenya. This results in a situation where a producer believes that he is using the correct chemical while it is in a class that is not allowed.
- Pesticides are considered to be the only solution to a specific problem regardless of available other means. The big producers/exporters' knowledge of alternative measures are company secrets and not available to the sector as a whole.
- The application technology is underdeveloped in Kenya, especially among small to medium size farmers, and leaking tanks, booms etc., inadequate coverage while spraying, spraying at the wrong time, poor or wrong nozzles etc. are frequent problems resulting in over use of chemicals and/or inadequate effects of the application.
- There is a general lack of measuring the chemicals properly when mixing spraying solutions. This results in both over/under supplying chemicals and also the risks of creating an immunity and/or exceeding MRLs. MRLs tolerance for imports to the EU will most probably be at a level of detection which means a zero tolerance from July 2001 and onwards.
- Most flower farms have a centralized spraying system, which has to be rinsed after each spraying. There are concerns about what to do with the rinsed solution and also the risks of forgetting to rinse which will harm the environment as well as harm the crop.

2.9.4. Institutional and Policy Issues.

There is obviously a lack of a single organization with the capacity to take the overall responsibility of the management of pesticides. The Pest Control Board is a regulatory organization. The Board

- does not have a laboratory facility to undertake quality checks for products. KEPHIS is doing this on request and at a rather high fee, and which weakens the Board's position when in controversy with a company on quality.
- Label recommendations on the use of chemicals in pre-harvest intervals are based on trials made outside the country, and it would be necessary to determine the PHIs relevant for the local conditions in Kenya. However, the big producers/exporters are doing this but that knowledge is not available for smaller to medium size producers/exporters in Kenya.
- Basic chemical and physical tests on pesticides including quality control of formulations (suitability of solvents and filler materials for pesticides, emulsifiability of EC formulations, suspendability etc.) are not carried out, and which affect the suitability of a product for a certain purpose.
- The Board does not have the facilities to assess the use of buffers, wetters, spreaders etc. in order to improve the effectiveness of a specific product. The Board does not have the capacity or even the procedures to register biological pesticides. A few pest control alternatives have been developed locally, but the Board is not able to assess them and make recommendations on their use.
- There is no surveillance and monitoring to assess the status of residues in fresh and processed food.

There is a lack of national capacity to analyze for pesticide residues. The Kenya Plant Health Inspectorate Service is the only organization with a reasonable capacity to analyze some categories of pesticides. The major problems being:

- They have a capacity of 70 samples per week, but a larger number would be required for a realistic assessment of the export situation.
- Lack of a complete range of standards.
- The methodologies used are not developed for all the pesticides.
- The issue of metabolites of residues has not been addressed at all, and the tests are done mostly for parent compounds only.
- The analysis are quite expensive or ranging from US$ 25-100, and also quite lengthy, which has forced the private sector to invest in their own analyzing facilities. It seems that the private sector has no need for an official analyzing capacity at present.

2.9.5. Farmer Training Issues.

There has been a lot of discussing of training in the country and. The Global Protection Federation also sponsored some training for the last 5-6 years as well as other organization such as USAID, Care etc. However, the emphasis was on safety and not on economical and environmental basis of the use of chemicals. It is quite clear that an improved knowledge of the use of pesticides and also on alternative methods would reduce the total use of chemicals significantly.

Issues such as MRLs, correct measurement of chemicals, correct application, both from a timing point of view as well as coverage, delay before harvest etc. present a real problem to the MRLs issue and also to the over use of chemicals. The big producers/exporters handle these issues very well, but the small to medium size exporters, without their own production and/or depending on brokers for their supply, may have a problem to address these problems properly.

2.12.6. Disposal of Chemicals in Kenya.

The present regulations that burial of waste should be done 250 m away from any water source are not viable since many farms are of 1-2 acres or even less. There should be a stricter manufacturer responsibility of taking back chemical packaging and destroying them.

2.9.7. Suggestions for improving the use of Pesticides in Kenya.

1. The cost of pesticides is quite high in Kenya, and a product under international registered labels seems often higher priced in Kenya than on the international markets.
2. Increase the capacity of PCPB to evaluate and approve of products in time.
3. Training input to especially out-growers supplying the vegetable/fruit export trade.
4. The introduction of special spraying teams/companies, which would do the pesticide application for the farmers.
5. Monitoring the residue levels through an improved analysis capacity in export commodities.
6. More specific research has to be done for introducing alternative methods of pest control, especially biological control or repellent plant function.
7. There s a need for capacity building in the PCPB in the area of registering and evaluating biological treatments.
8. Increased and accredited laboratory capacity for determining MRLs and with much more rapid results, which would require very sophisticated equipment to serve the industry. At present, most exporters rely on analysis results from the import country. The cost for local analysis is too high and not competitive, mainly due to poor equipment and lack of staff. This is an issue of great importance for the future of Kenya as a major horticulture exporting country.

2.9.8. Pesticide Residue Levels.

Exporters of fresh produce to the EU should be aware of changing legislation in the application and permitted residue of pesticides. Two initiatives are important here:

1. The EC is reviewing the active ingredients authorized for sale in the EU and intends to draw up a list of accepted substances by 2003. Any active substance not defended, reviewed and authorized by 2003 will no longer be permitted for use within the EU. Although overseas use cannot be controlled, there will be "zero tolerance" of residues from pesticides for which EU approvals has been revoked.
2. Maximum Residue Levels (MRLs) are the permitted residue levels of any pesticide on a fruit or vegetable product. Since 1976 a number of directives have modified the legislation to incorporate a number of crop/pesticide combinations. At present, over 17,000 MRLs have been set for various commodities for 133 pesticides.

   A list of MRLs already established can be found at
   http://europa.eu.int/comm/dg24/health/lqp/index_en.htm

An ambitious project is underway that will set harmonized MRLs for every combination of permitted pesticide and fruit or vegetable. The EU horticultural research institutes have been actively assessing and reviewing MRLs for crop/pesticide combinations applicable to EU crops. If the experimental data required by the reviewers is not transmitted by the due date, the MRL is set, by default, "at the limit of determination". The consequences for exporters of tropical fruits are serious. Analytical technology is now so advanced that "the limit of determination" effectively sets the tolerance to zero residue, so unless MRLs are established for each crop/pesticide combination, the MRL is set at zero. In other words, unless an MRL is established for a crop/pesticide combination, use of that pesticide, although permitted as an active substance, must cease for that product since discovery of a residue would prohibit import. COLEACP has prepared an action plan to tackle these issues. Details can be found at www.coleacp.org.

Part III. Recommendations for USAID.

In the consultant's opinion, USAID should focus on the following issues, in order to assist the industry and improve rural household income:

- Marketing: There will be a need for marketing assistance, partly via the existing exporter organizations, KFC and FPEAK, but also based on individual company market efforts. The latter assistance should be limited to small- to medium sized export companies. This assistance should cover maximum 50% of the actual cost but could be lower and should be evaluated for each individual project and its importance for the whole sector as well as for the individual project.

- Out-grower assistance. There is a need to re-organize the out-growers into groups of suitable entities to be interesting for the exporters in the future. There is need for both technical assistance, funding of inputs and funding of implements such as irrigation equipment and coolers. Funding of inputs should be determined as a cost per acre and with a maximum amount per group. Funding of implements should be set per acre for irrigation equipment and with a maximum amount per group. This value should be considered as the maximum amount for implements. The two funding issues are separate and should be treated as such, which means that the same group should be able to obtain funding for both issues.

- Training of out-grower groups and small farmers in pest control. In previous training programs on pesticide use and –handling, emphasis was on safety and not on economical and environmental basis of the use of chemicals. It is quite clear that an improved knowledge of the use of pesticides and also on alternative methods would reduce the total use of chemicals significantly. Issues such as MRLs, correct measurement of chemicals, correct application, both from a timing point of view as well as coverage, delay before harvest etc. present a real problem to the MRLs issue and also to the over use of chemicals. The big producers/exporters handle these issues very well, but the small- to medium size exporters, without their own production and/or depending on brokers for their supply, may have a problem to address these problems properly.

- The implementation of the CoP will require training of pre-auditing personnel, and there is, at present, no organization undertaking this cost. Whether the pre-auditing should be carried out by KFC and FPEAK or by an independent organization is not quite clear. However, in the consultant's opinion, the work should be carried out by the two exporter associations and at cost, and which is the opinion of the present management of both organizations. USAID should assist in financing the training of pre-auditors.

- There is a need for an organization undertaking the requirements of external training of personnel in the private sector on issues required by the CoP and/or other label programs. In the consultant's opinion, KFC and FPEAK should carry out this training, since they would have the manpower and knowledge through their pre-auditing functions.

- In the consultant's opinion, it would be more effective if KFC and FPEAK set up this organization as a joint venture and each organization could request services for pre-auditing and external training from the joint pool.

- USAID would require an agency to handle the program. The agency should evaluate each project and also follow up on the development of each project. In matters of investment costs for inputs and implements and for marketing assistance, the agency should be qualified to judge the viability of the costs and follow up on the actual use of the funds. On matters of training and re-organizing of out-grower groups, the agency should be able to acquire technical assistance from the above resources with KFC and FPEAK. The disbursement of the funds could be done directly through the agency or via a local bank. The reimbursement of funds could be done through the exporter contracted to the out-growers to the agency or via a local bank directly from the out-growers. The reimbursement should, in any case be connected to the contracted exporter, in order to enable the agency to deduct the money from sales proceeds should the out-growers fail to

repay their loans. Funding for inputs should be reimbursed within two years in full and should be renewable after that time should the need arise, provided that the out-grower has reimbursed the funding properly. Funding for sprayers end similar, should be reimbursed with 50% in three years and irrigation equipment with 50% in five years. 50% of that funding should be grants.

It is recommended that USAID initiate bi-annual meetings with the major aid organizations working in the horticultural sector in Kenya in order not to duplicate or compete with one another in the same area and to make best use of the funds available. Such co-operation may also result in organizations recommending each other to applicants if their own resources are momentarily used up or because another organization is better represented or more specialized in a specific area or field. Other major organizations working in the horticultural sector in Kenya are DFID (Development Fund for International Development), IFAD (International Fund for Agricultural Development) and Care Kenya.

App.1. Abbreviations used.

ACP	African Caribbean Pacific Countries
CIF	Cost/insurance/freight, i.e. landed price inclusive of freight etc.
CoP	Code of Practice
DFID	Development Fund for Industrial Development
EU	European Union
fob	Free on Board, i.e. export price at the border of the exporting country not inclusive of freight etc.
FPEAK	Fresh Produce Exporters Association
HCDA	Horticultural Crops Development Authority
KARI	Kenya Agricultural Institute
KEBS	Kenya Bureau of Standards
KEPHIS	The Kenya Plant Health Inspectorate Service
KFC	Kenya Flower Council
LDC	Least Developed Countries
MRLs	Maximum Residue Levels
PCPB	Pest Control Products Board
WTO	World Trade Organization

App. 2. Companies and offices visited.

Myner Exports Ltd.
Langata Shopping Centre
Langata Road
P.O. Box 11706
Nairobi

FPEAK, Fresh Produce Exporters Association of Kenya
Kabarnet Road
P.O. Box 40312
Nairobi

Kenya Flower Council
P.O. Box 56325
Muthangari Gardens in Lavington
Nairobi, Kenya

Mr David H Grey
P.O. Box 63141
Nairobi

Everest Enterprises Ltd.
Everest House
Outering Road, Embakasi
P:O: Box 52448
Nairobi

Waridi Ltd.
P.O. Box 19294
Nairobi

Export Promotion Council
Anniversary Tower 1-16
University Way
P.O. Box 40247
Nairobi

SDV TransAmi
Off Mombasa-Nairobi Road
P.O. Box 90263
Mombasa

Baobab Farm Ltd.
P.O. Box 81995
Mombasa

Vegpro (K) Ltd.
P.O. Box 1442
Nairobi

Oserian Development Ltd.
Naivasha
P.O. Box 43340
Nairobi

Eustoma Kenya Ltd.
P.O.Box 64327
Nairobi

Jakal Services Ltd.
P.O. Box 86874
Mombasa

Siginon Freight Ltd.
Off Mbaraki Road
P.O.Box 99646
Mombasa

ECI
P.O. Box 409
Woodmead 2148
South Africa

Sunripe (1976) Ltd.
Cargo Village, J.K.I.A.
P.O. Box 41852
Nairobi

Sian Roses
P.O. Box 15139
Nairobi

Homegrown
P.O. Box 10222
Nairobi

East African Growers Ltd.
P.O. Box 49125
Nairobi

HCDA
P.O. Box 42601
Nairobi

Kenya Plant Health Inspectorate Service, Kephis.
P.O. Box 49592
Nairobi

KN Airlink
P.O. Box 69979
Nairobi

Tradewinds Express Ltd.
P.O. Box 42474
Nairobi

Carzan Ltd.
P.O. Box 1060
Limuru
Kenya

DFID
Upper Hill Road
P.O. Box 30465
Nairobi
Kenya

Care Kenya
Mucai Road Off Ngong Road
P.O. Box 43864
Nairobi
Kenya

App. 3. EU Standards for Vegetables and Fruits.

Authorities including the OECD, FAO (Codex Alimentarius) and the EC have issued a number of standards for horticultural produce. The EC standards are issued as regulations and are enforceable by inspectors. In practice, however, the importers apply specifications set by their customers that are significantly more demanding than any of the regulatory standards: the tolerances are more exacting and the range of issues more extensive including control of production and post harvest handling as well. In particular, the protocol for Good Agricultural Practice (GAP) instigated by the major European retailers under the EUREP scheme (www.eurep.org) should be noted.
Nevertheless, the EC standards are detailed documents that are legally enforceable. The standard for asparagus is given below as an indication of the subject matter and terminology. Further details of all EC standards are available on the web site of the European Commission and can be found in the directory of community legislation in force at http://europa.eu.int/eur-lex/en/lif/reg/en_register_036054.html

Commission Regulation (EC) No 2377/1999 of 9 November 1999 laying down the marketing standard for asparagus

DEFINITION OF PRODUCE
This standard applies to shoots of the varieties (cultivars) grown from *Asparagus officinalis* L., to be supplied fresh to the consumer, asparagus for industrial processing being excluded.
Asparagus shoots are classified into four groups according to color:

1. white asparagus;
2. violet asparagus, having tips of a color between pink and violet or purple and a part of the shoot white;
3. violet/green asparagus, part of which is of violet and green coloring;
4. green asparagus having tips and most of the shoot green.

This standard does not apply to green and violet/green asparagus of less than 3-mm diameter and white and violet asparagus of less than 8-mm diameter, packed in uniform bundles or unit packages.

II. PROVISIONS CONCERNING QUALITY
The purpose of this standard is to define the quality requirements for asparagus after preparation and packaging.
A. Minimum requirements
In all classes, subject to the special provisions for each class and the tolerances allowed, the shoots must be:

- intact,
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded,
- free from damage caused by unsuitable washing (the shoots may have been washed but not soaked),
- clean, practically free of any visible foreign matter,
- fresh in appearance and fresh-smelling,
- practically free from pests,
- practically free from damage caused by pests,
- practically unbruised,
- free of abnormal external moisture, i.e. adequately "dried" if they have been washed or cooled with cold water,
- free of any foreign smell and/or taste.

The cut at the base of the shoots must be as clean as possible.

In addition, shoots must be neither hollow, split, peeled or broken. Small cracks which have appeared after harvesting are, however, allowed, so long as they do not exceed the limits laid down in IV A. "Quality tolerances"

The condition of the asparagus must be such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination.

B. Classification

Asparagus is graded into three classes defined below:

(i) "Extra" class

Shoots in this class must be of superior quality, very well formed and practically straight. Having regard to the normal characteristics of the group to which they belong, their tips must be very compact.

Only a few very slight traces of rust on the shoot, removable by normal peeling by the consumer, are allowed.

For the "white" asparagus group, the tips and shoots must be white; only a faint pink tint is allowed on the shoots.

Green asparagus must be totally green.

No traces of woodiness are allowed for the shoots in this class.

The cut at the base of the shoots must be as square as possible. However, to improve presentation when the asparagus is packed in bundles, those on the outside may be slightly beveled, so long as the beveling does not exceed 1 cm.

(ii) Class I

Shoots in this class must be of good quality and well formed. They may be slightly curved. Having regard to the normal characteristics of the group to which they belong, their tips must be compact.

Slight traces of rust removable by normal peeling by the consumer are allowed.

For the "white" asparagus group, a faint pink tint may appear on the tips and the shoots.

Green asparagus must at least be green for 80 % of the length.

In the "white" asparagus group, no woody shoots are allowed. For the other groups, a trace of woodiness on the lower part is permissible, provided this woodiness disappears by normal peeling by the consumer.

The cut at the base of the shoots must be as square as possible.

(iii) Class II

This class includes shoots that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

Compared with class I, shoots may be less well formed, more curved and having regard to the normal characteristics of the group to which they belong, their tips may be slightly open.

Traces of rust, removable by normal peeling by the consumer are allowed.

The tips of "white" asparagus may have a coloration including a green tint.

The tips of "violet" asparagus may have a slight green tint.

Green asparagus must at least be green for 60 % of the length.

Shoots may be slightly woody.

The cut at the base of the shoots may be slightly oblique.

III. PROVISIONS CONCERNING SIZING

Size is determined by the length and diameter of the shoot.

A. Sizing by length

The length of the shoots must be:

- above 17 cm for long asparagus,
- 12 to 17 cm for short asparagus,

- above 12 cm for class II asparagus arranged, but not bundled in the packages,
- under 12 cm for asparagus tips.

The maximum length allowed for white and violet asparagus is 22 cm, and for green and violet/green asparagus 27 cm.

The maximum difference in length of shoots packed in firmly bound bundles must not exceed 5 cm.

B. Sizing by diameter

The diameter of shoots shall be measured at the mid-point of their length.

IV. PROVISIONS CONCERNING TOLERANCES

The following tolerances in respect of quality and size are allowed for produce not satisfying the requirements of the class indicated in each package.

A. Quality tolerances

(i) "Extra" class

5 % by number or weight of shoots not satisfying the requirements for the class, but conforming to those of class I, or exceptionally, coming within the tolerances for that class, or having slight unscarred cracks appearing after harvesting.

(ii) Class I

10 % by number or weight of shoots not satisfying the requirements for the class, but conforming to those of class II, or exceptionally, coming within the tolerances for that class, or having slight unscarred cracks appearing after harvesting.

(iii) Class II

10 % by number or weight of shoots satisfying neither the requirements for the class, nor the minimum requirements, but excluding shoots affected by rotting, or any other deterioration rendering them unfit for consumption. In addition to the above 10 %, an additional tolerance of 10 % by number or weight can be allowed for hollow shoots or shoots showing very slight cracks due to washing.

In no case can there be more than 15 % hollow shoots in each package or bundle.

B. Size tolerances

For all classes: 10 % by number or weight of shoots not corresponding to the size indicated and deviating from the specified limits of length with a maximum deviation of 1 cm in length and 2 mm in diameter.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package, each unit package or each bundle in the same package should be uniform, and comprise only asparagus of the same origin, quality, color group and size (where sizing is compulsory).

Nevertheless, with respect to color, shoots of a different color group may be allowed within the following limits:

- white asparagus: 10 % by number of weight of violet asparagus in class "Extra" and "I" and 15 % in class II,
- violet, green and violet/green asparagus: 10 % by number or weight of another color group.

In the case of class II, a mixture of white and violet asparagus is allowed provided it is appropriately marked.

The visible part of the contents of each package, unit package or bundle must be representative of the entire contents.

B. Presentation

The asparagus may be presented in the following ways:

(i) in bundles firmly bound

Shoots on the outside of each bundle must correspond in appearance and diameter with the average of the whole bundle.

In "Extra" Class, asparagus shoots packed in bundles must be of the same length.

Bundles must be arranged evenly in the package; each bundle may be protected by paper.

In any one package, bundles must be of the same weight and length;

(ii) in unit packages, or arranged but not bundled in the package

C. Packaging

The asparagus must be packed in such a way as to ensure adequate protection for the produce.

The materials used inside the package must be new, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials and particularly of paper or stamps bearing trade specifications is allowed provided that the printing or labeling has been done with a non-toxic ink or glue.

The package must be free from any foreign matter.

VI. PROVISIONS CONCERNING MARKING

Each package must bear the following particulars in letters grouped on the same side, legibly and indelibly marked and visible from the outside.

A. Identification

Packer and/or dispatcher: Name and address or officially issued or accepted code mark. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

B. Nature of produce

"Asparagus" followed by the indication "white", "green", "violet", or "violet/green" if the contents of the package are not visible from the outside and, where appropriate, the indication "short", "tips" or "mixture white and violet".

C. Origin of produce

Country of origin and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class,
- Size expressed:

(a) for asparagus subject to the uniformity rules, as minimum and maximum diameters;

(b) for asparagus not subject to the uniformity rules, as minimum diameter followed by maximum diameter or the words "and over",

- For asparagus packed in bundles or unit packages, the number of bundles or the number of unit packages.

E. Official control mark (optional)

PHYTOSANITARY REGULATIONS

Council Directive 2000/29/EC regulates the phytosanitary control of the import of fresh fruit and vegetables from outside of the European Union, aiming to prevent the spread of damaging diseases and pests.

The phytosanitary regulations of the European Union apply to only a few products imported from outside the EU. The regulations are pest and country specific. For the most part the regulations apply to the import of products that are also cultivated in Europe, although some tropical fruits are also included as hosts to quarantine pests. In particular, the import of the following products requires a phytosanitary certificate and treatment to safeguard against the import of quarantine pests and pathogens:

Genus	Examples
Annona	Cherimoya, custard apple, soursop, sweetsop, atemoya etc
Citrofortunella	Limequat
Citrus	Orange, lemon, lime, grapefruit, easy peeler
Cydonia	Quince
Diospyros	Persimmon, black sapote
Fortunella	Kumquat
Malus	Apple
Mangifera	Mango
Passiflora	Passionfruit, granadilla
Prunus	Plum, greengage, damson, apricot, peach, nectarine, cherry
Psidium	Guava, guajaba, goyavier
Pyrus	Pear
Ribes	Redcurrant, whitecurrant, gooseberry, blackcurrant
Syzygium	Roseapple, malabar plum, Malay apple
Vaccinium	Blueberries, cranberries, cowberries etc

The text of the Directive can be viewed at
http://europa.eu.int/eur-lex/en/lif/dat/2000/en_300L0029.html

App.4. EU Standards for Floricultural Products.

Common Quality Standards for Cut Flowers.

I. Definition of produce.

These standards shall apply to fresh cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, falling within subheading No. 06.03 A of the Common Customs Tariff.

II. Quality Requirements.

A. Minimum Requirements.

Produce must have been carefully cut or picked, according to the species, and have reached an appropriate stage of growth.

B. Classification.

(i) Class 1.

Produce in this category must be of good quality. It must have the characteristics of the species, and where appropriate, of the variety (cultivar).

All parts of the cut flower must be:

- Whole
- Fresh
- Free of animal or vegetable parasites and from damage caused by such
- Free of residues of pesticides and other extraneous matter affecting the appearance
- Unbruised
- Free of defects of development; for standard carnations a split calyx is not considered a defect of development.

However, in respect of Standard (American) carnations flowers with a split calyx must be ringed, put up separately in uniform lots and the packaging marked accordingly.

The stems must, according to the species and variety (cultivar), be rigid and strong enough to support the flower(s).

(ii) Class 2

This class should include all produce which do not meet all the requirements of Class 1.

All parts of the cut flower must be:

- Whole
- Fresh
- Free of animal parasites

The flowers may, however, have the following defects:

- Slight malformation
- Slight bruising

- Slight damage caused by disease or by animal pests
- Weaker, less rigid stems
- Small marks caused by treatment with pesticides

The permitted defects must not impair the keeping quality, appearance or utility of the products.

C. Class Extra

Produce which qualifies for Class 1 without the aid of any quality tolerance may be marked ‘Extra’. However, this classification may not be used for Standard (American) carnations with split calyxes.

III. Special Provisions.

The special provisions for certain types of flowers set out in Annex 1A shall override the provisions of this annex (not reproduced here).

IV. Sizing.

For cut flowers, sizing must comply at least with the following scale:

Code	Length
0	Less than 5 cm or flowers marketed without stems
1	5-10 cm
2	10-15 cm
3	15-20 cm
4	20-30 cm
5	30-40 cm
6	40-50 cm
7	50-60 cm
8	60-80 cm
9	80-100 cm
10	100-120 cm
11	More than 120 cm

These lengths include the flower head.

The difference per unit of presentation (bunch, bouquet, box and the like) between the maximum and minimum lengths of the flowers in the unit may not exceed:

- 2,5 cm for flowers in codes 15 and below.
- 5,0 cm for flowers in codes 20 (inclusive) and 50 (inclusive).
- 10,0 cm for flowers in codes 60 and above.

This difference may be doubled for flowers presented in a fan shape. For chrysanthemums with large flowers presented in fan shape, this difference may go up to 20 cm for flowers in codes 20-50 (inclusive).

The size scales and the uniform lengths are not applicable to mimosa.

The minimum length for branches of mimosa shall be fixed at 20 cm. However, bundles and bouquets composed exclusively of small sprigs of a length less than 20 cm may be permitted subject to the words 'short stem' or an equivalent being marked on the packages.

V. Quality tolerances.

Quality tolerances should be permitted in each unit of presentation as follows:

(i) Class 1.

Five per cent of the cut flowers may have slight defects, on condition that the uniformity of the flowers in a unit of presentation is not affected.

(ii) Class 2.

Ten per cent of the cut flowers may vary from the requirements of the class. Half of this percentage may have been attacked by parasites of animal or vegetable origin.

The defects in question must not impair the utility of the products.

VI. Packaging and presentation.

A. Presentation (Regulation EEC No 802/71)

A unit of presentation (bunch, bouquet, box and the like) must consist of 5, 10 or a multiple of 10 pieces.

However, this rule does not apply to:

(a) Flowers normally sold singly
(b) Flowers normally sod by weight
(c) Flowers for which the seller and the buyer agree expressively to derogate from the provisions concerning the number of flowers in a unit of presentation. This derogation is admissibly solely for transactions outside wholesale markets on conditions that

    - The goods are subject of a direct sale, based on a fixed selling price per unit of presentation, at wholesale level to a retailer or a person acting on behalf of a retailer.
    - The goods are accompanied by a bill, delivery note or similar document showing the above-mentioned selling price.
    - The unit of presentation in the packaging required by the buyer for the ultimate purchaser. This packaging must be such as to permit identification of the goods.

B. Uniformity.

Each unit of presentation (bunch, bouquet, box and the like) must contain flowers of the same genus, species or variety (cultivar), and of the same quality class, and must have reached the same stage of development.

Mixtures of flowers or mixtures of flowers with foliage of different genus, species or variety (cultivars) are, however, permitted so long as the products of the same quality calls are used and that they are appropriately marked.

C. Packaging.

Packaging must protect the produce adequately. Paper or other materials in direct contact with the cut flowers must be new.

VII. Marking.

The following particulars must accompany the goods:

A. Identification.

Dispatcher or Packer; Name and address or code mark.

B. Nature of produce.

- Genus
- Species or variety (cultivar) or color of flowers
- Where appropriate, the word ‘mixture’ (or equivalent term)

C. Origin of Produce (optional).

Region of origin, or national, regional or local names.

D. Commercial specifications.

- Class
- Size (length code) or minimum and maximum lengths (optional).
- Number or net weight.

E. Official control mark (optional).

F. Presentation (Regulation EEC No 802/71)

If the number of flowers per unit of presentation does not correspond to the provisions of section VIA, packages must be marked to show the exact composition of the units of presentation contained therein.

App. 5. Vegetable and Fruit Market Situation for Selected Species.

FRENCH & CLIMBING BEANS

There is a strong demand in Europe for imported fresh beans of the species *Phaseolus vulgaris*. While many other species of *Phaseolus* and *Vigna* are grown around the World for consumption both fresh and dried, varieties of *P.vulgaris* have become the major airfreighted fresh vegetable into the EU.

A number of varieties of *P.vulgaris* are grown and many different names are applied, but the most important to East Africa are the French beans (also referred to as string, green, filet, needle, haricot, Kenya, snap) and the climbing beans (also called Helda). They are widely grown and can be cultivated in temperate, sub-tropical and tropical climates over a range of territory.

The trade distinguishes three types of French bean:

- Bobby beans are typically 8-12mm in diameter, 12-116cm long
- Fine beans are 6.5-9mm diameter, 10-13cm long
- Extra fine beans are 6-7.5mm diameter, 8-12cm long

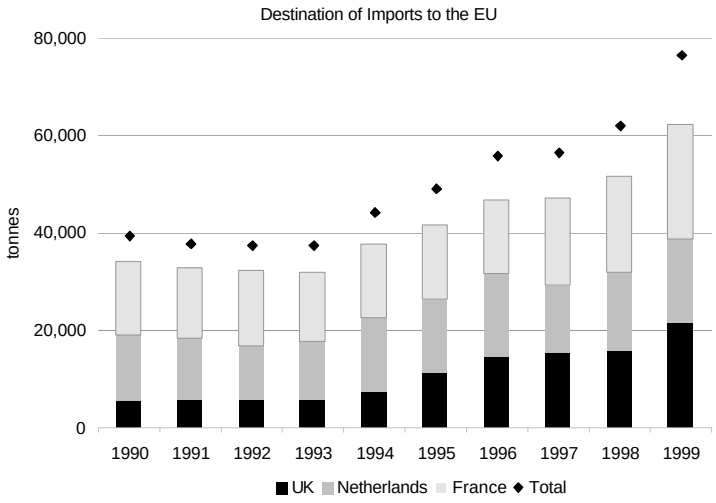
European production is limited by the cost of harvesting. Climbing beans are produced in Europe, and southern Europe, notably Italy and Spain, also produces some of the large grades of French beans, i.e. the bobby beans, during the summer months.

Trade statistics do not distinguish the different types of beans. In fact, all the fresh imported beans of species of *Phaseolus* and *Vigna* are grouped together under one code. Over 96% of imports arrive from Africa and most of these are either French or climbing beans.

Figure 1 shows the imports of fresh beans in the EU from non-EU sources. It does not include trade within the EU or re-exports since it is not possible to separate out locally produced beans from imported ones.

Figure 1 Bean Imports to the EU

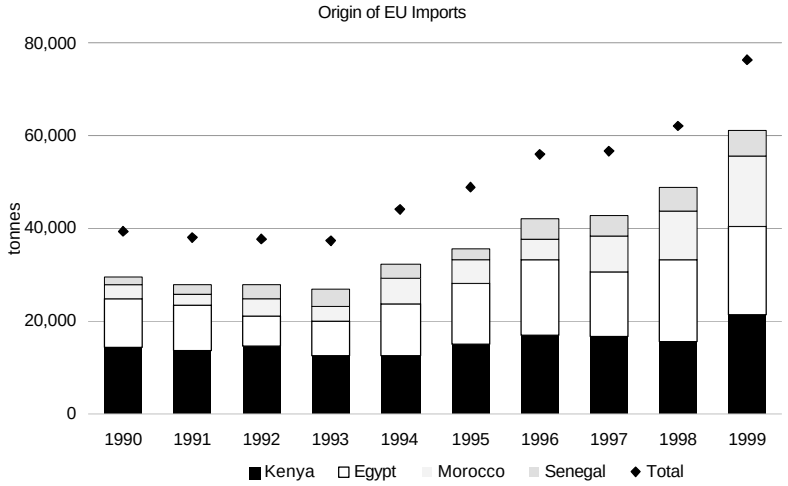
Source: EUROSTAT



- Figure 1 shows the rapid development of the EU market since the early 1990s. Total EU imports of beans (all fresh beans from all origins) reached 76,000 tons by 1999.
- France is the largest importer with over 23,000 tons entering France during 1999. A large proportion of these imports derives from Morocco and may have been re-exported subsequently, but there is a strong demanding France particularly for the extra-fine grades.
- The UK is the second largest importer, with arrivals of 21,000 tons in 1999. The bobby beans and fine grades are more important in this market.
- Imports to the Netherlands have not grown as much as those to France or the UK. Imports to the Netherlands exceeded 17,000 tons in 1999. Much of this is redistributed in northern Europe.

Figure 2 Origin of EU Imports

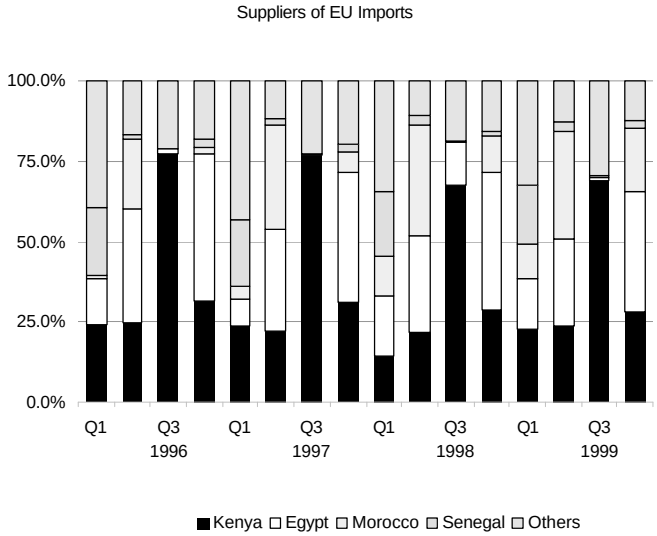
Source: EUROSTAT



- Three suppliers, Kenya, Egypt and Morocco, now provide 73% of the EU imports of beans.
- Kenyan supplies have grown by 50% since 1990 to over 21,000 tons in 1999. Kenya is the leading supplier to the EU.
- The EU imports of fresh beans was worth some US $133mn (CIF) in 1999 of which imports from Kenya were valued at over US $57mn (CIF).

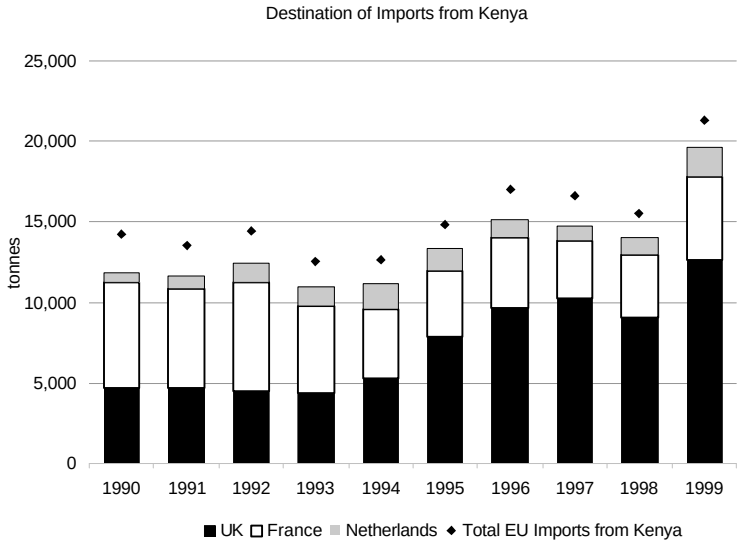
Figure 3 Seasonality of EU Bean Imports

Source: EUROSTAT



- Kenya supplies beans to Europe throughout the year. Quarterly exports are relatively even but there is a marked dip in quarter 3 (Jul-Sep). At this time Europe has plentiful supplies of its own vegetables and total imports from outside the EU fall dramatically.
- Quarters 1 and 2 are the most important time for imports.

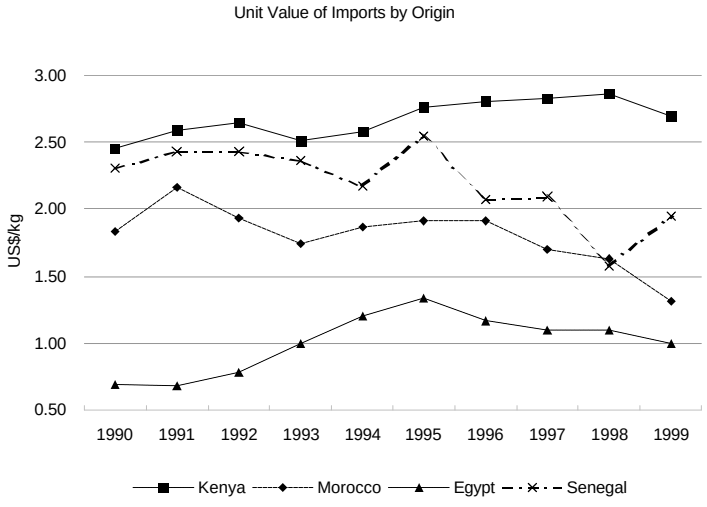
Figure 4 destination of Bean Imports from Kenya



Source: EUROSTAT

- The UK has become the major market for Kenyan bean exports. In the early 1990s France led the imports from Kenya, but in 1999 almost 60% of Kenya beans were dispatched to the UK.
- 24% of bean shipments from Kenya are sent to France. Exports to France showed a steady decline during the 1990s from 6,760 tons in 1992 to 3,613 in 1997 while total French imports remained broadly static. Subsequently, a growth in French imports during 1998 and 1999 has been reflected in increased imports from Kenya.

Figure 5 Unit Import Value of Beans



Source: EUROSTAT

- The values in Fig 5 are calculated from the import statistics. They are not real prices and are subject to a number of potential errors, but they do show the trends and there is a reasonable accord with reported market prices.
- The highest unit values are achieved by Kenyan produce. Values from Senegal and Morocco fell significantly during the late 1990s. Kenyan produce maintains value by the strength of its marketing and the quality of its produce.
- Values for Egyptian exports are low, as these are mostly the lower priced climbing beans.

MANGETOUT

Mangetout here refers to all the edible-podded peas, including the snow peas and the sugar snaps. Snowpeas are harvested before the peas begin to swell, while the pods are still flat. In sugar snaps the pods are full but the peas are still tender.

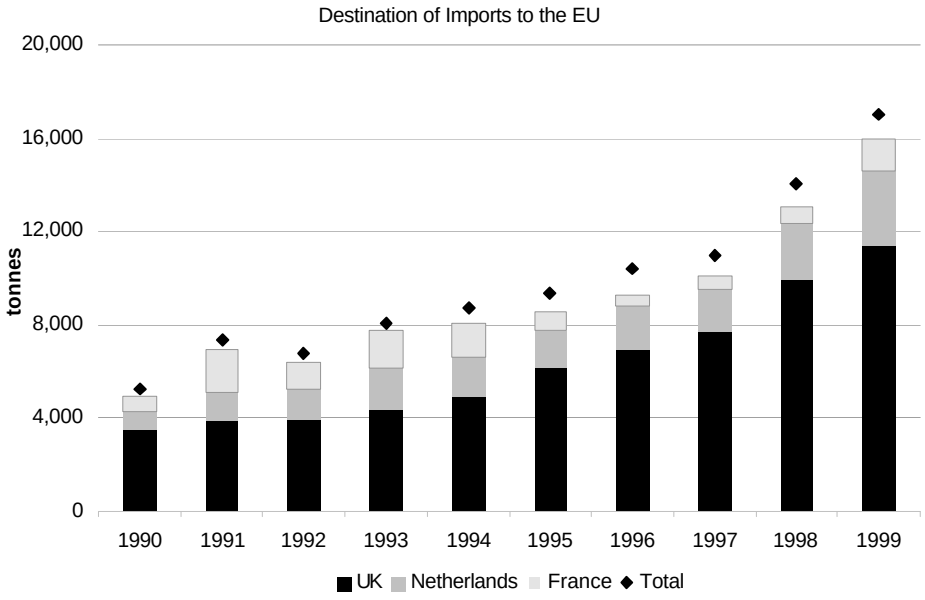
Although mangetout are quite popular garden crops in Europe, the commercial production is limited by cost since the pods must be harvested by hand.

The trade statistics of Europe do not distinguish the mangetout from other, shelling, peas but it can be assumed that all long distance imports to the EU are the high value mangetout.

Fig 1 shows the imports to the EU from non-EU sources. It does not include trade within the EU or re-exports since it is not possible to separate out the shelling peas from the mangetout.

Fig 1 Mangetout Imports to the EU

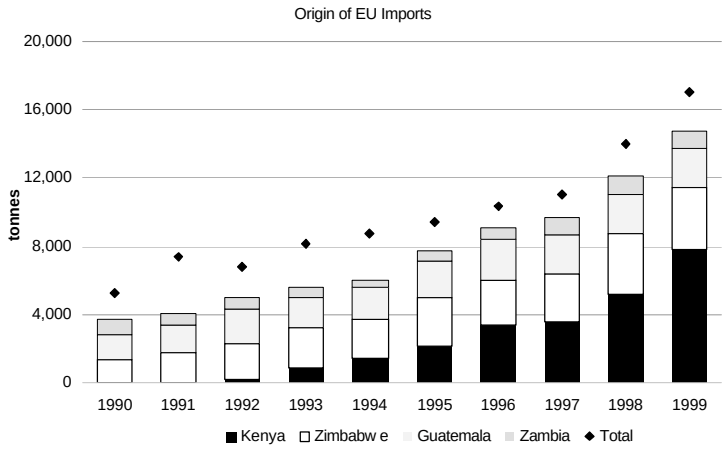
Source: EUROSTAT



- Figure 1 shows the rapid development of EU imports of mangetout in the late 1990s. Total EU imports of peas reached 17,000 tons by 1999. This figure includes a small quantity of shelling peas from other European sources.

- The UK is by far the largest importer of mangetout, importing in excess of 11,000 tons in 1999.
- The Netherlands is the next largest importer taking 3,000 tons in 1999. Mostly these imports are distributed to other EU member states.

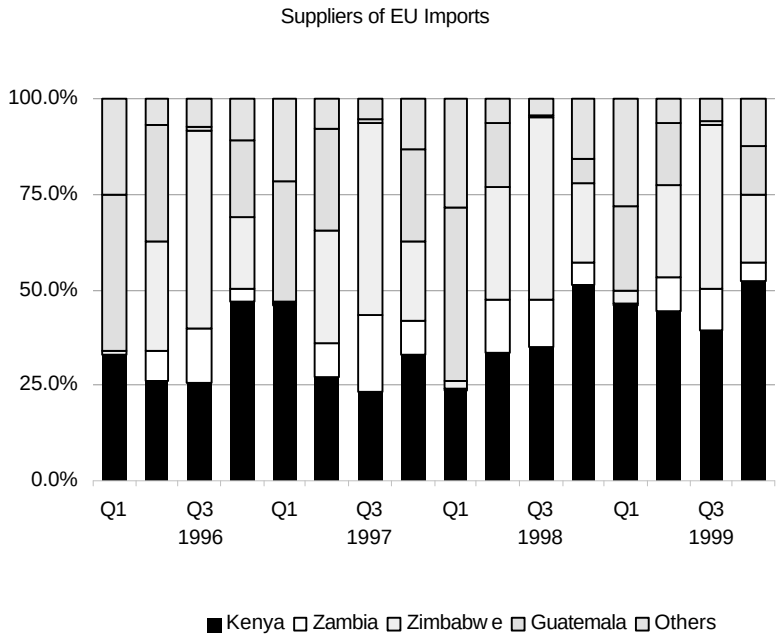
Figure 2 Origin of EU Imports



Source: EUROSTAT

- Four suppliers, Kenya, Zimbabwe, Guatemala and Zambia, now provide over 86% of the peas imported to the EU.
- Kenyan exports have grown rapidly from 1992 to dominate the supplies to Europe. Imports from Kenya reached almost 8,000 tons in 1999.
- The EU imports of peas were worth US $52mn (CIF) in 1999. Of this, the imports from Kenya were valued at over US $24mn (CIF).

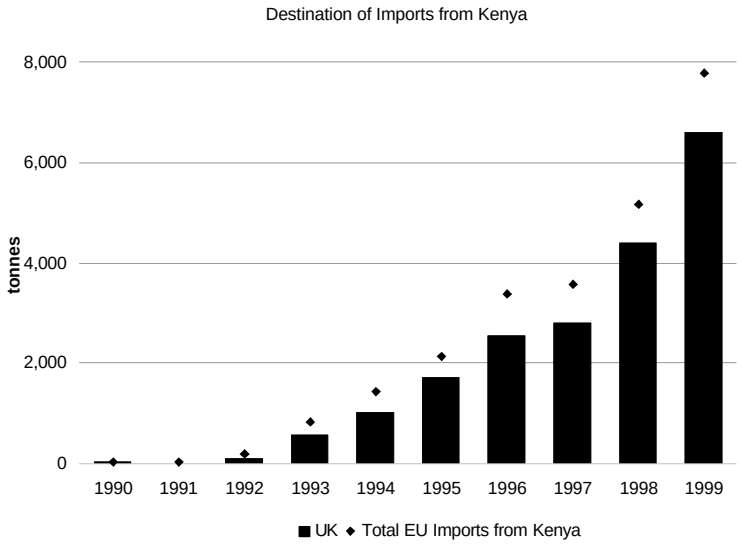
Figure 3 Seasonality of EU Pea Imports.



Source: EUROSTAT

- Kenya supplies the EU market throughout the year. It is the only major supplier to do so.
- Zambia and Zimbabwe do not supply during Quarter 1.
- Guatemala does not supply during Quarter 3.

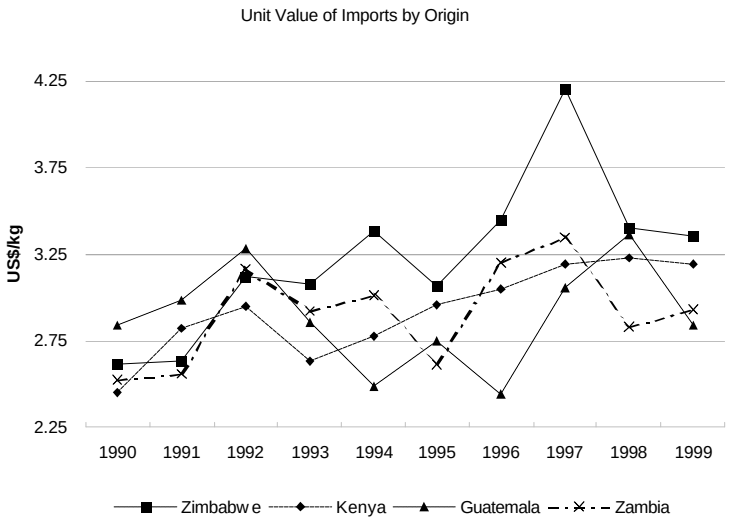
Figure 4 Destination of Mangetout Imports from Kenya



Source: EUROSTAT

- The UK is the principal destination for Kenyan exports of mangetout. There appears to have been little marketing outside of the UK.

Figure 5 Unit Import Value of Mangetout



Source: EUROSTAT

- The values in Fig % are calculated from the import statistics. They are not real prices and are subject to a number of potential errors, but they do show the trends and there is a reasonable accord with reported market prices.
- The highest unit values are achieved by Zimbabwean produce.

- Kenyan mangetout values have increased steadily since 1993.
- Zimbabwean and Zambian values have declined since 1996 while Kenyan and Guatemalan values have risen.

ASIAN VEGETABLES

A large number of products, typically ingredients in Asian cuisine, are grouped together here.
The major products are:
Gourds and cucurbits
Karela
Dudhi
Tinda
Tindori
Turia

Aubergines

Okra

Legumes
Chora
Gwar
Valore
Yardlong

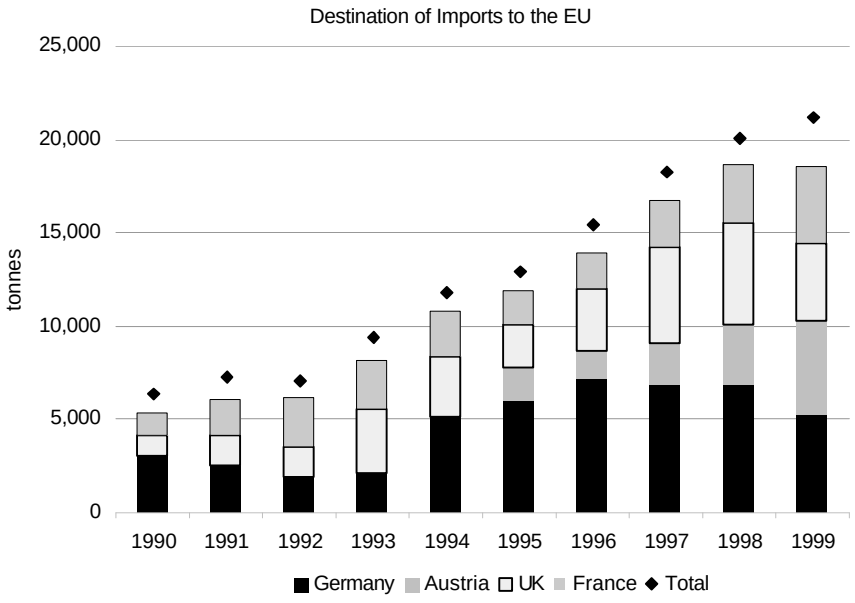
Roots
Sweet Potatoes
Taro
Cassava
Yam

There are also a number of leaf vegetables, which would be included here, but they are mostly temperate or Mediterranean crops and there are no opportunities for long distance supply.
The trade statistics do not disaggregate these products and they are included either as 'Other Legumes' or as 'Other Vegetables'.
The demand for these products has been created in Europe by the immigrant populations and is therefore focussed on markets, such as the UK, where they are most numerous. There has been some crossover into mainstream purchasing through the interest in novel flavors and ethnic cooking. Mostly however this is restricted to the catering trade and the supermarkets carry only limited supplies.
These will remain specialist products, focussed on the UK. Their value puts them just in the range of the lower cost airfreight opportunities, and West African suppliers provide most of the EU imports. Kenya has some share of this market. The roots and tubers are sea-freight items supplied either from West Africa or the Caribbean.

CAPSICUMS

A wide variety of capsicum types are grown around the world. Generally, they can be classified by end use into a) sweet peppers for flavor, salad use and decoration b) paprika for coloring and c) chilies for heat. However, the distinction gets somewhat blurred by the types which fulfill more than one function. The capsicum trade described here refers mostly to the trade in fresh chilies, but specifically in the product for fresh consumption rather than in the product destined for processing and oil extraction. It does not include the sweet peppers that are a major salad crop in Europe nor the paprika used as a colorant. In terms of trade classification for customs purposes these are "other capsicums".
Among the fresh chilies there are many different types and cultivars: Anaheim, Jalapeno, Fresno, Habanero, Serrano, Bird's Eye, Scotch Bonnet and Cayenne show a range of heat ratings, color and pod shape and size. The demand for each is quite specific and often associated with the traditional cooking of a particular region of the World. The import requirement in the EU is therefore quite particular about the cultivar required.
Capsicum imports to Europe grew strongly during the 1990s to exceed 21,000 tons by 1999. Figure 1 shows the progress of imports to the EU from non-EU sources. It does not include the trade within the EU or re-exports.

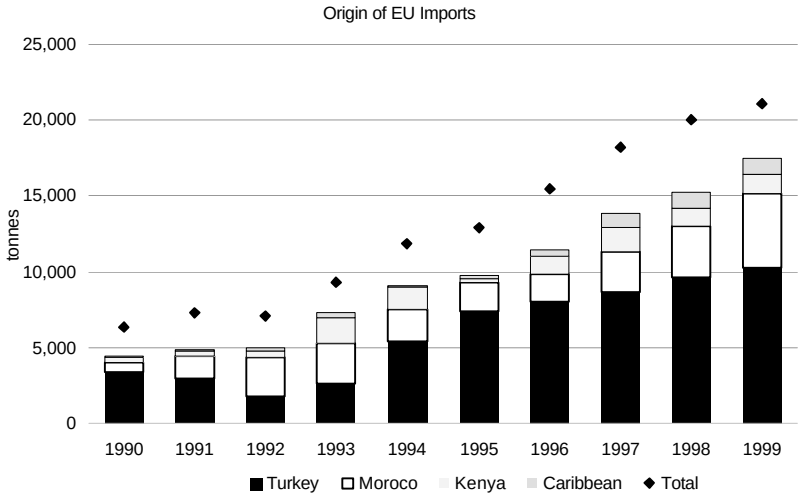
Figure 1 Capsicum Imports to the EU



Source: EUROSTAT

- Germany is the largest importer of capsicums.
- The total EU importers were raised significantly by the accession of Austria to the EU in 1996. Austria is a major importer.
- The UK has a significant demand, which fell to 4,200 tons in 1999 from 5,400 tons in 1998.

Figure 2 Origin of EU Imports



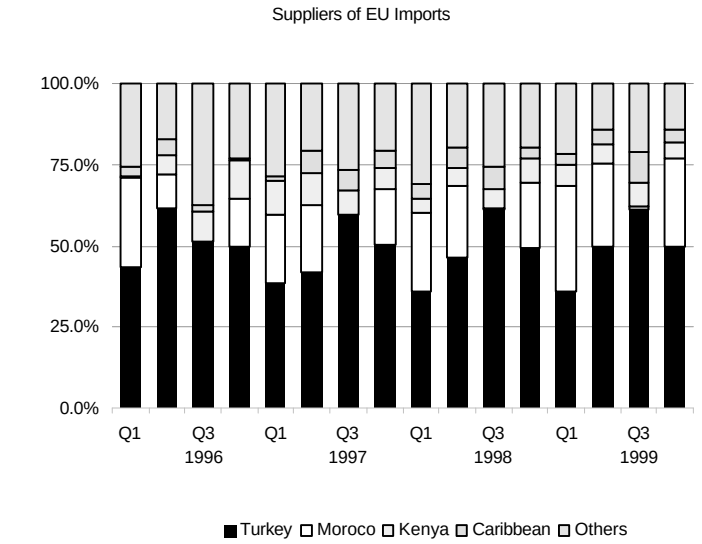
Source: EUROSTAT

- The principal supplier to Europe of 'other capsicums' is Turkey. These are Mediterranean style long peppers with some heat. They are particularly popular in Austria and Germany.
- Kenya supplied almost 1,300 tons of capsicums in 1999. The exports have not grown significantly since the mid 1990s.

- The total EU import trade of capsicums was valued at US $27.6mn (CIF) in 1999 of which Kenya's exports contributed US $3.2mn (CIF).

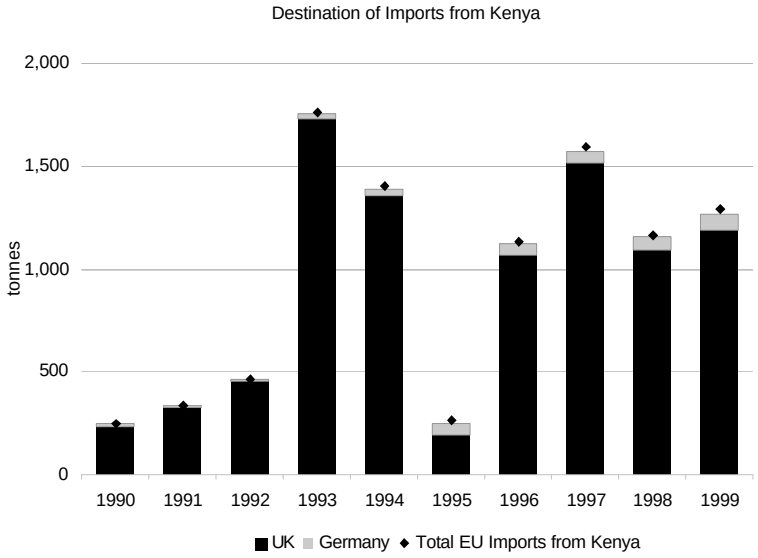
Figure 3 Seasonality of EU Capsicum Imports

Source: EUROSTAT



- Turkey and Kenya supply the EU throughout the year.

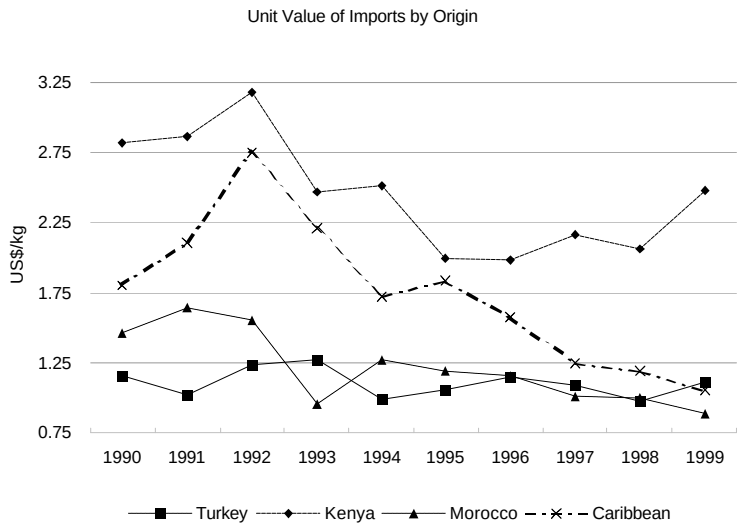
Figure 4 Destination of Imports from Kenya



Source: EUROSTAT

- Almost all exports of capsicums from Kenya to the EU are sent to the UK.

Figure 5 Unit Import Value of Capsicums



Source: EUROSTAT

- The values in Figure 6 are calculated from import statistics. They are not real prices and are subject to a number of potential errors, but they do show the trends and there is a reasonable accord with reported market prices.
- The fall in prices during the 1990s is clear. Kenya achieves a relatively high value.

AVOCADOS

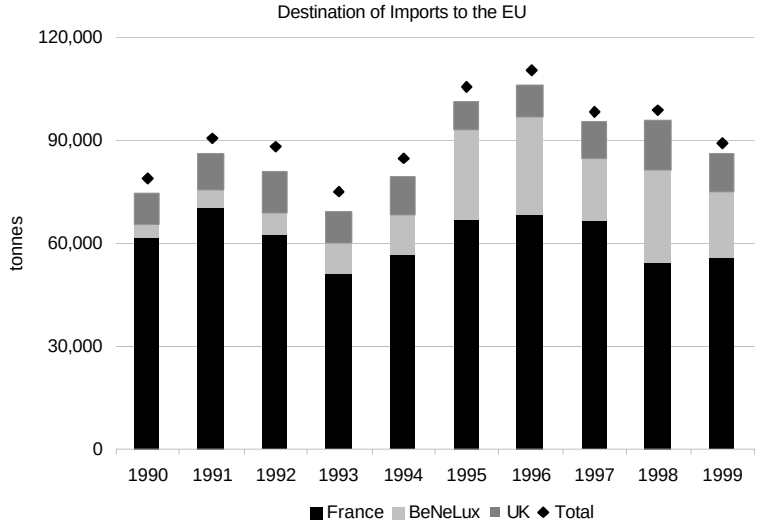
Imports of avocados into the EU in 1999 amounted to some 89,000 tons, which was not significantly different from 10 years previously. In the mid 1990s imports rose to 110,000 tons but have since fallen back again. The downward trend will probably continue as European production from southern member states gradually expands. While the import of avocados into Europe has declined trade within the EU has increased from 45,000 tons in 1990 to 96,000 tons in 1999.

The principal varieties of interest to the European markets are Hass, Fuerte and Ettinger. Hass is particularly favored in the UK. France accepts both Hass and Fuerte, while the green varieties, Ettinger and Fuerte, are preferred in Germany.

Figure 1 shows the imports to the EU from non-EU sources. It does not include the trade within the EU or re-exports.

Figure 1 Avocado Imports to the EU

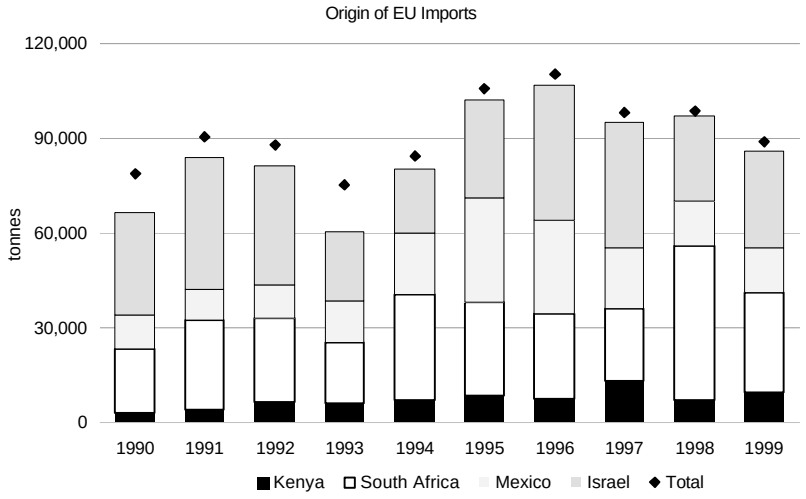
Source: EUROSTAT



- Figure 1 shows the recent decline of the imports of avocados into Europe.
- France is by the far the largest importer and consumer of avocados. The next largest importers are the Benelux countries collectively. Imports here are distributed across northern Europe.
- The UK imports around 11,000 tons of avocados from outside the EU. Overall the UK market is growing slowly with total imports in 1999 of some 18,000 tons.

Figure 2 Origin of EU Imports

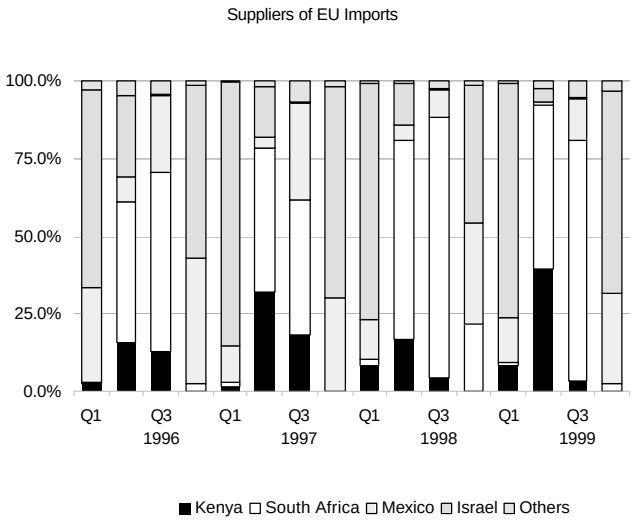
Source: EUROSTAT



- The principal suppliers of avocados to Europe are South Africa, Israel and Mexico. South African exports have shown the best growth with exports increasing by 50% over the 1990s. Although Israeli exports grew during the 1990s they have since fallen back.
- Kenya expanded exports with the development of sea freighting and a consequent reduction in costs.

- The EU imports of avocados were worth US $138mn (CIF) in 1999. Of this, imports from Kenya were valued at US $13.7mn (CIF).

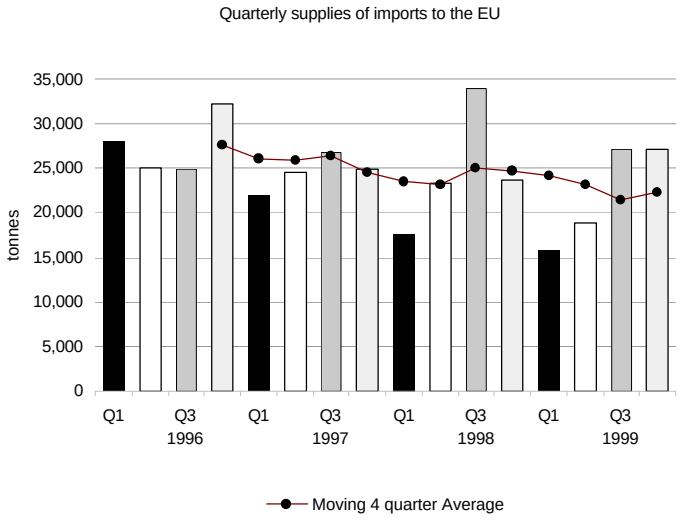
Figure 3 Seasonality of EU Avocado Imports



Source: EUROSTAT

- Kenya supplies mainly into quarter 2 while South Africa has a strong market share in quarters 2 and 3. Mexico and Israel supply quarters 1 and 4.
- Production in Spain has increased during the 1990s and expanding availability in quarters 4 and 1. This has impacted directly on the imports from outside the EU as shown in figure 4.

Figure 4 Quarterly Imports from non-EU origins.



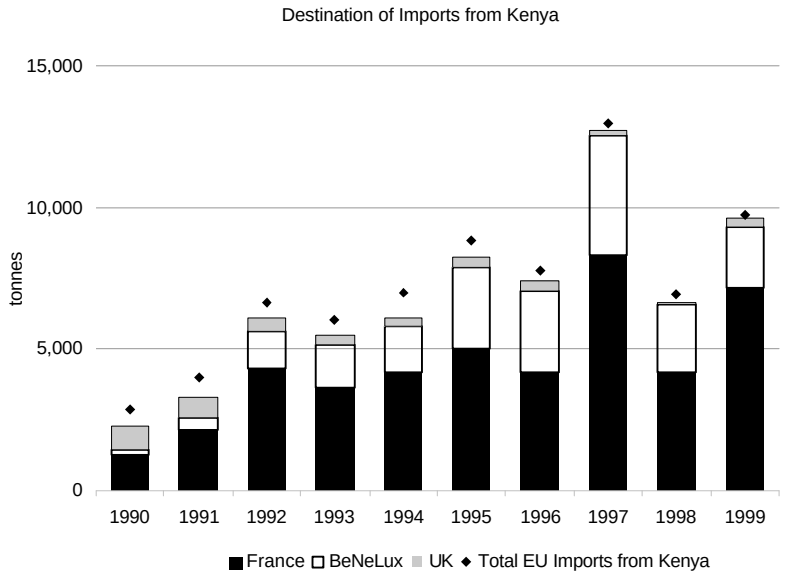
Source: EUROSTAT

- The falling imports in quarter 1 are shown here as EU output increases. Quarter 4 also shows a downward trend, although this reversed in 1999.
- The overall decline in avocado imports is largely due to the falls in quarters 1 and 4. Quarters 2 and 3 imports have been more stable.

- The implications for Mexico and Israel, exporting at the same time as the southern European harvest is serious. In the future, the import requirement will become more focussed on quarters 2 and 3. Mexico is developing a year round supply pattern.

Figure 5 Destination of Avocado Imports from Kenya

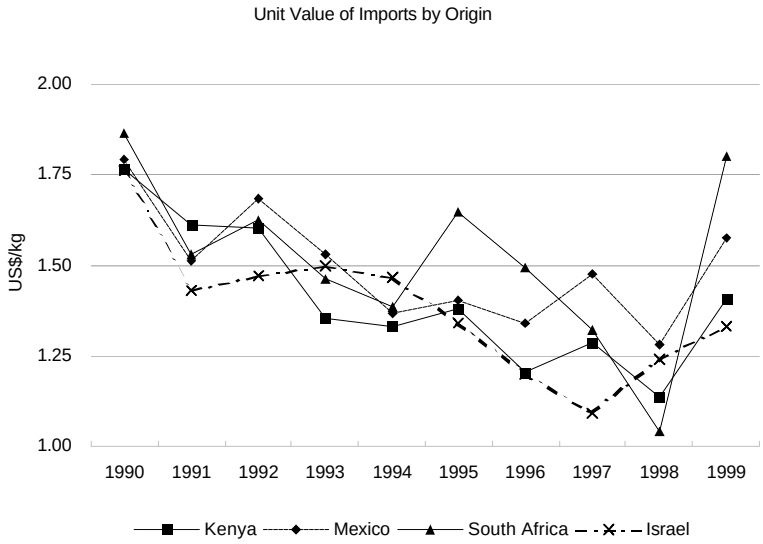
Source: EUROSTAT



- Most avocado exports from Kenya are shipped to France or the Netherlands.

Figure 6 Unit Import Value of Avocados

Source: EUROSTAT



- The values in Figure 6 are calculated from import statistics. They are not real prices and are subject to a number of potential errors, but they do show the trends and there is a reasonable accord with reported market prices.

- The erosion of prices in the 1990s is clear. All four major origins suffered a decline in import values.