



Partnership for Market Access; towards a sustainable market-oriented horticultural sector in Kenya

The fruits and vegetables sector in Kenya

Position paper

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1. Introduction

1.1 Background of the Partnership for Market Access Kenya and The Netherlands

During the World Conference on Sustainable Development (WSSD) held in Johannesburg in 2002, a number of partnership initiatives were launched, aiming at collaborative efforts of governments, private partners, and civil society organisations to reach common objectives in a particular field of interest. They are based on mutual respect and shared responsibility of the partners involved.

The Netherlands has taken the initiative for a Partnership on Market Access through meeting quality standards for food and agricultural products, for which a number of countries showed interest, among them countries in East Africa and Indonesia and Malaysia. With the respective governments of Zambia, Uganda and Tanzania it has been agreed to start a partnership on Horticulture, whereby first priority will be given to phytosanitary issues. Since bilateral development relations with Kenya were restored during the later part of 2003, it has been proposed recently to extend the WSSD partnership to this country.

The main objective of the partnership initiative is to improve access of horticultural products to the markets of Europe and other industrialized countries by enhancing cooperation in the field of quality standards in relation to food safety, the environment and phytosanitary issues. This with the general aim to contribute to increased global competitiveness of farmers, food processors, retailers and traders in developing countries. The co-operation will effectively address poverty in developing countries, sustainable production and consumer concerns.

The specific objective of this study is to develop an agenda for public – private activities in the framework of WSSD partnership program, which address long-term challenges for the flower industry in Kenya. The topics of the agenda need to address issues identified by the major private and public partners and civil society organizations that will affect the continuity of the flower industry in the years to come.

1.2 Approach

The approach in the study consists of the following steps:

1. Desk research: analysis of the current situation and development of a framework for questionnaires.
2. Conduct interviews with various stakeholders of the Kenyan fruits and vegetables industry, both in Kenya and The Netherlands. The stakeholders of the fruits and vegetables industry were identified and grouped in categories, namely:
 - growers / exporters
 - government bodies
 - NGOs
 - Donors
 - Associations
 - Breeders & propagators
 - Input & equipment suppliers and other service providers (auctions/importers).

The interviews in The Netherlands were conducted by Mr. Arno Eussen of Fresh Projects, in Kenya by Mr. Martin Mulandi.

3. The results of both activities were analysed by LEI in cooperation with consultants in order to formulate proposals for public – private projects within the framework of the WSSD Partnership Program.

The position paper and the formulated topics for public-private activities will be the input for a stakeholder meeting in January 2005 in Nairobi. The final objective is to formulate concrete and feasible Terms of Reference for action plans formulated by committed partners in the framework of the WSSD partnership program, in line with the WSSD partnership criteria.

1.3 Readers guide

In paragraph 2, a short overview of the current situation in the flower sector is presented. Paragraph 3 addresses the strengths, weaknesses, opportunities and threats of the sector, followed by potential strategies to address the main bottlenecks make use of the existing opportunities in paragraph 4. In paragraph 5 the proposed activities for inclusion in the WSSD public-private partnership programme are presented for further discussion and decision-making during the stakeholders' consultation.

2. The fruits and vegetables sector in Kenya: overview and trends

2.1 Production of fruits and vegetables

Kenya has a relatively diversified agricultural sector, including a variety of staple food crops, a well-established dairy sector and a number of export commodities like tea, coffee, meat and horticultural produce. Within the horticultural sector, a wide range of products is being grown. In the coastal and relatively arid areas fruits (citrus, mango, melon and bananas) and nuts are cultivated. In semi-arid and middle-altitude zones horticultural production includes vegetables (like French beans and runner beans), Asian vegetables (like okra, karalla and dudhi) and fruits (like avocado, pineapple, mango, passion fruit and citrus). At higher altitudes cut flowers (like roses and carnations), vegetables (like peas and cabbage) and fruits (like pears, apples and plums) are produced.

Generally fruits and vegetables are considered commercial crops. Apart from numerous rural households that produce horticultural crops in their home garden and sell surplus informally at the local market, the horticulture sector includes many market-oriented growers ranging from smallholders to plantations. Horticultural crops realise relatively high values per unit of land, which makes horticulture an attractive production activity to rural households with access to little land. On small farms fruits and vegetables are predominantly cultivated under rain-fed conditions whereas the large commercial farms have sophisticated management systems. Particularly export vegetables like beans and peas are often produced on larger scale.

The estimations of the total production volume of fruits and vegetables vary considerably as part of the production is consumed within the family or sold at nearby markets. Estimations for 2003 show a total production volume between 4 and 5 million tons, with a total value of approximately 38 billion Kenyan shillings (or 385 million euro).

Also the total number of households involved in horticulture is difficult to determine, but it is estimated that around 250,000 farming households are involved in fruits and vegetables production. Out of these, around 200,000 are smallholders, and 50,000 medium to large-scale commercial growers. In absence of a clear categorization, the following rough distinction can be made according to total production area:

- Smallholders: ranging from less than 1 acre to around 1 hectare of total farm size;
- Medium to large commercial farms: ranging from 1 hectare to above 50 hectares of farm size.

Out-growers are found in both categories; a number of them work on relatively small plots of land, but there are also out-growers having or renting multiple hectares for export production.

2.2 Supply chains

The supply chains of fruits and vegetables can be categorized into fresh and processed produce for the domestic and export markets. Kenya has a strong domestic market for fruits and vegetables. In 2003 around 94% of the production volume was consumed domestically (88% in fresh and 6% in processed form) whereas 6% of the total produced volume of fruits and vegetables was exported in that year (3% as fresh exports and 3% in processed form).

The domestic market for fruits and vegetables has a diversified demand structure with a number of market segments (ranging from fresh rural consumption and urban wet markets to modern supermarkets, and from restaurants and five-star hotels to animal feed), which led to the development of different supply chains. Some chains are simple and straightforward (like smallholders supplying nearby markets and specialized institutional producers supplying schools, hospitals and supermarkets), while others tend to be complex with or without formal (sub)contracts and go via many links like local traders and brokers, regional brokers, wholesalers to the retailers. Small producers and out-growers are mainly involved in the production and supply to the domestic market. However, they have always played a significant role in the export chain as well, and still do when the total production capacity of large commercial farms cannot satisfy the current export demand.

Recently, standardization of products has become an important issue in the domestic market of fruits and vegetables due to increased “sophisticated demand” in upper market segments like hotels, restaurants and supermarkets and increased competition amongst producers, brokers and retailers. As of July 2004, some 120 registered standards of horticultural and related products have been set.

2.3 The sector’s importance to the Kenyan economy

Currently the horticulture sector is the fastest growing agricultural sub-sector in Kenya and has grown into a significant industry of the country’s economy. In fact, despite recent declining overall economic growth in Kenya, the horticultural sector has continued to show a positive performance with regard to production, productivity, marketing and employment. It has been acknowledged that the “free-hand environment” and political stability as provided by the Government to this sector certainly contributed to this positive performance.

Horticulture is considered one of the most vibrant industries in the country. There is a lack of reliable data, but the total direct and indirect employment generated by the sector is estimated at 2 million people. A significant percentage of them are women and migrant workers.

The fruits and vegetables sector in Kenya has been widely recognized for its potential to contribute to economic growth and poverty reduction mainly for the following characteristics:

- relatively high value per unit of land ;
- suitability of crops to small-scale farming systems;
- existence of a variety of crops for production in different agro-ecological zones;
- relatively quick maturing period for many crops which implies that farmers can derive quick returns on their production factors;
- relative labour intensity which implies a high rate of absorption of rural workers;
- the sector tends to be private sector oriented with the Government in an enabling role.

The development of the horticulture sector in Kenya is broadly seen as a success story of development. In addition to the Government’s commitment to provide a favourable business climate, a key factor to the relative success of the sector has been the catalytic role played by external stakeholders and foreign investors promoting innovation and competition along with lobbying for the collective interest of stakeholders involved in the sector.

As the focus of the partnership program between The Netherlands and Kenya is on the export of horticultural crops from Kenya to markets of the European Union and other industrialized countries, the export supply chain is addressed in more detail.

2.4 Export market developments

During the past ten years, the total export volume of fruits and vegetables has almost doubled from around 37,500 tons in the early 1990s to some 72,000 tons in 2003. While the volume of exported vegetables increased by over 80%, the export volume of fruits more than doubled over the past decade.

Development of export volumes of fruits and vegetables 1992 – 2003 (in tons)

Year	Vegetables	Fruits	Total
1992	26,323	11,232	37,555
1993	26,785	11,698	38,483
1994	26,978	13,079	40,057
1995	32,126	13,865	45,991
1996	32,742	16,869	49,611
1997	30,890	17,450	48,340
1998	36,800	11,350	48,150
1999	46,377	15,595	61,972
2000	45,031	15,415	60,446
2001	34,771	22,595	57,366
2002	46,000	20,000	66,000
2003	48,270	23,575	71,845

Source: Horticultural Crops Development Authority

Development of export value of fruits and vegetables 1992 – 2003 (in Kenyan shillings)

Year	Vegetables	Fruits	Total
1992	909.700.000	358.980.000	1.268.680.000
1993	1.700.300.000	489.400.000	2.189.700.000
1994	1.797.450.000	536.600.000	2.334.050.000
1995	2.204.830.000	617.340.000	2.822.170.000
1996	2.577.110.000	769.520.000	3.346.630.000
1997	3.116.180.000	805.110.000	3.921.290.000
1998	4.052.220.000	819.530.000	4.871.750.000
1999	5.713.000.000	1.256.000.000	6.969.000.000
2000	5.293.400.000	1.098.000.000	6.391.400.000
2001	8.034.500.000	1.559.800.000	9.594.300.000
2002	10.140.000.000	1.560.000.000	11.700.000.000
2003	10.391.000.000	1.896.000.000	12.287.000.000

Source: Horticultural Crops Development Authority

The total export value of fruits and vegetables in 2003 was over 12 billion Kenyan shillings equivalent to approximately 127 million euro. A major share (around 85%) goes to

vegetables, which equals to 107 million euro, whereas some 20 million euro is earned on fruit exports.

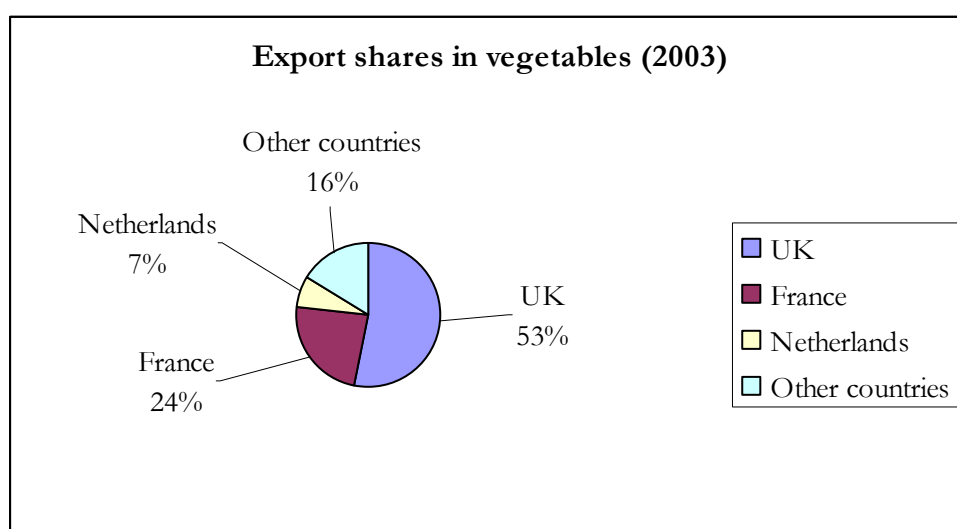
With a relatively low share of total production volume exported (6% in 2003), these exports account for around 33% (127 out of 385 million euro) of the total production value.

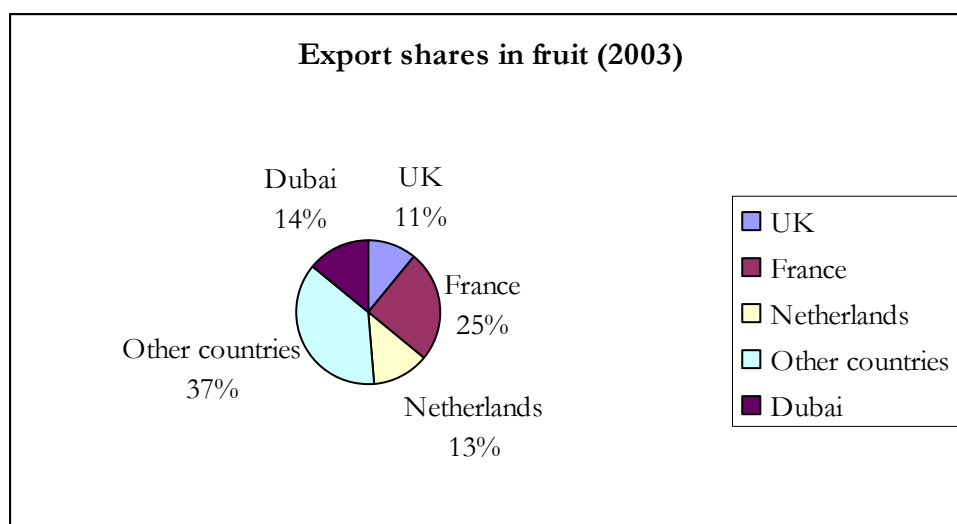
The UK has a long trading history with Kenya and has been for many years the leading importer of vegetables from the country. It imports more than 50% of Kenya's export vegetables, while some 24% finds its way to France and 7% to the Netherlands.

The export to the UK comprises beans, peas and a variety of Asian vegetables like okra, dudhi, karalla, aubergines and chillies. Traders and exporters from Indian origin in Kenya and importers from Indian origin in the UK dominate this export supply chain.

The export to France, Netherlands and other EU countries comprises mainly French beans, peas and runner beans. Export destinations outside the EU include the South Africa which has a year round demand for Asian vegetables. Other regional export in vegetables is limited.

The leading vegetable is the French bean variety accounting for more than 40% of Kenya's export of vegetables. Other prominent export vegetables are Asian vegetables (14%), snow peas (10%), and runner beans (6%).





With regard to fruits, Kenya exports mainly to France (25%), the Netherlands (13%), UK (11%) and other EU countries. Outside the EU, the Middle East is an important market mainly for fresh mangoes and pineapples; some 14% of the total fruits export goes to Dubai.

The fruit trade is dominated by a few products: avocado accounts for more than 60% of the exports followed by mangoes (some 25%), pineapples and passion fruits. Recently, the export of passion fruit has come up remarkably. On the other hand, avocado imports into the EU have declined considerably due to the increasing production in Mediterranean countries. In addition, horticultural exports include dry fruits like macadamia nuts and cashew (mostly to the Middle East and countries in the region).

Main fruits and vegetables imports to the Netherlands from Sub-Saharan Africa (2002)

Country	Main export products
Senegal	French beans, cherry tomatoes, mangoes
Ethiopia	French beans
Kenya	French beans, sugar peas, other vegetables, avocados, passion fruits
Ghana	Aubergines, other vegetables, pineapple, bananas
Zambia	French beans, sugar peas
Zimbabwe	Sugar peas, hot peppers, citrus fruits, passion fruits
South Africa	Onions, other vegetables, apricots, apples, pears, grapes, plums, citrus fruits, pineapples, avocado, litchi, mangoes
Swaziland	Citrus fruits

2.5 Competitive export performance

Kenya, Egypt and Morocco account for 75% of the total import of French beans by the EU countries with Kenya as the leading supplier. Over the past years, the main competition has been from Egypt, while Morocco is now seen by many Kenyan exporters as an increasingly important competitor. Transportation costs make up the largest proportion of total export costs and both Egypt and Morocco have a relative advantage in that aspect for their distance

to the EU. With regard to Morocco, part of the beans is being exported by sea and/or road instead of by air, which results in considerably lower total costs.

The EU countries source snow peas mainly from Zimbabwe, Kenya, Guatemala and Zambia which together account for some 85% of EU imports in snow peas. Of these countries, Kenya is the only year-round supplier.

There has been a trend in EU market towards more variety, higher quality, “healthy” food and convenience products. This has led to increased demand for finer grades (e.g. in French beans and peas), year-round supply of fresh produce, certified, sorted, pre-packed and/or shelf-ready vegetables. The horticulture industry in Kenya has been able to respond well to these demand changes and has maintained its market position.

The supply chain of Asian vegetables to the UK is a distinct case and tends to have its own dynamics and certain entrance barriers for relative outsiders.

Kenyan exporters compete with an increasing number of countries that target the EU market with horticultural produce. Important competitors in French beans are Egypt and Morocco, but also Senegal, Burkina Faso, Zimbabwe and Ethiopia. Strong competing exporters in snow peas are Guatemala, Zambia and Zimbabwe. Avocadoes are mainly exported from Israel, Mexico and South Africa, but are now also increasingly produced in Spain. In mangoes, Kenya competes with South Africa, Ghana, Costa Rica and Mexico. Till now, passion fruit seemed to lack a reliable main market, although its export has started picking up especially to the Netherlands.

Due to the delicate and perishable nature of the produce, the export supply chain of fresh fruits and vegetables has to be short and highly structured. Fruits and vegetables quickly find their way from the producers to Nairobi-based exporters in order to be air freighted to reach their retail outlets in Europe in as little as 48 hours. At the height of the horticultural export growth during the 1990s, there were some 400 formal traders and exporters, but this number has decreased to around 150. In 2004, there were 76 licensed exporters of fruits and vegetables in Kenya. However, the trade is dominated by 10 large exporting companies that account for about 85% of the total export of fruits and vegetables. They have become preferred suppliers of international supermarket chains and supply directly to EU importers.

Main exporting countries from Sub-Sahara Africa to the Netherlands (2002, in tons)

Country	Vegetables	Fruits
Senegal	34.000	4.270
Ethiopia	15.600	
Kenya	46.000	20.000
Ghana	2.820	24.000
Zimbabwe	8.220	233.000
South Africa	53.900	2.970.680
Swaziland		127.220

Source: Horticulture Crop Development Authority

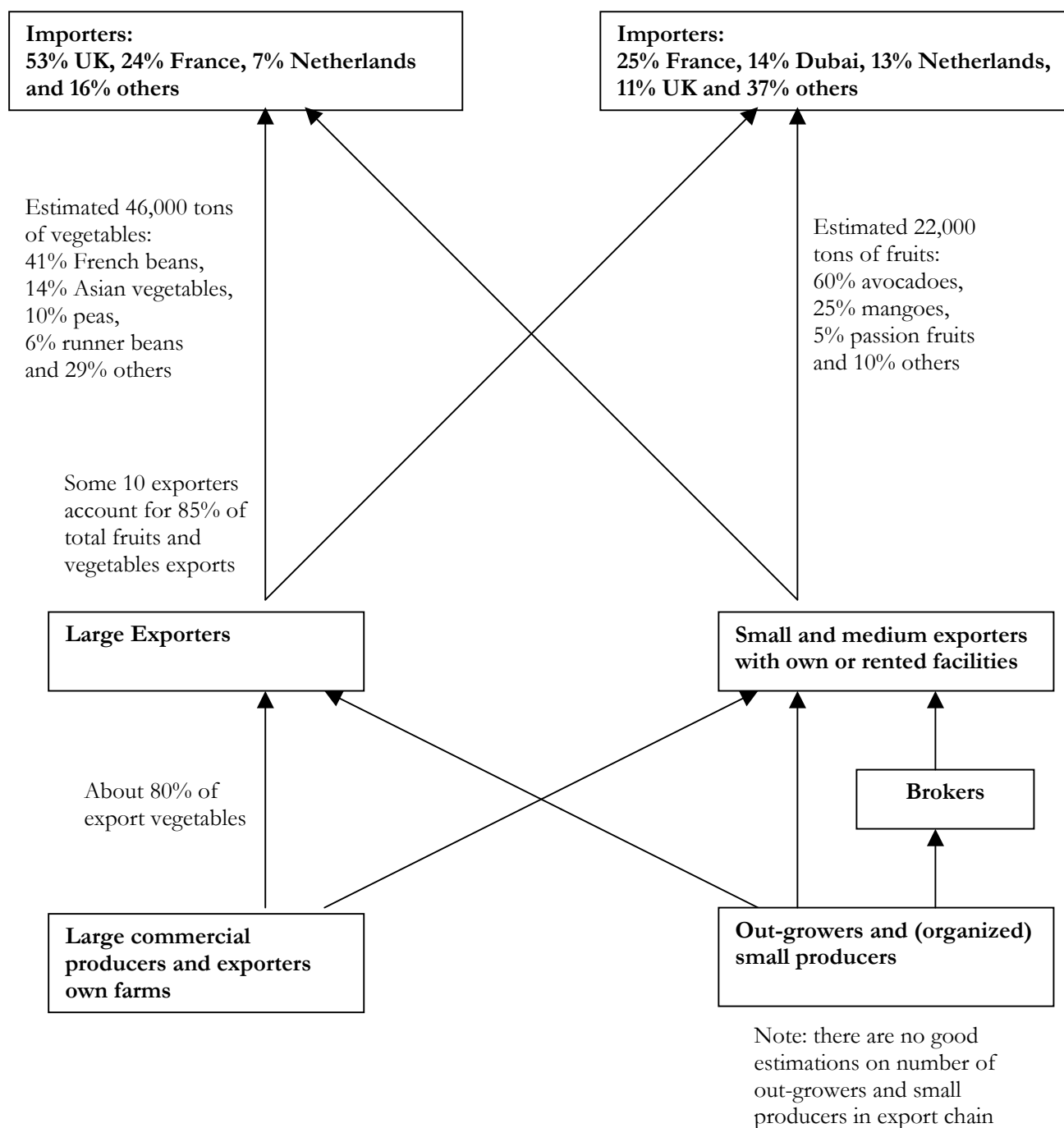
2.6 Export production structures

The production of export vegetables can be roughly categorized into three different organisational structures:

- in management by exporting companies;
- out-growers sub-contracted by exporters or supervised by the Horticulture Crops Development Authority (HCDA);
- producers without contract selling for export to any broker or trader.

Large exporters have recently invested considerably in vertical integration of the supply chain to gain better control over the chain from input supply to export handling. These companies have their own production farms, transport, processing, packing and cold storage facilities near Nairobi's international airport.

Exporting companies have invested particularly in the production of export vegetables like French beans, runner beans and peas at medium to large scale. Alternatively, they buy these vegetables from independent larger commercial farmers or from smallholders through contract farming arrangements or brokers. Medium and large farmers are increasingly being contracted while the proportion of export vegetables sourced from small producers and out-growers is decreasing. Runner beans and snow peas are well suited to relatively large-scale production systems: productivity tends to increase significantly under well-managed conditions and protected from wind like in green houses. Production of French beans on the other hand, is suited to small-scale and open-air farming systems through e.g. out-grower arrangements.

General overview of the export supply chains of fruits and vegetables (with 2002 data)

The current production capacity of medium and large farms in peas and French beans, but also Asian vegetables, fruits (like mangoes and passion fruits) and nuts has been reported to be insufficient to satisfy the present export demand. This implies that, at least for the time being, the export supply chain remains partly dependent on participation of small producers and out-growers.

The category of producers without any contract or supervision that succeed to produce for the export market is on the decline. Since such producers tend to lack proper crop registrations and records, they are often found to be a threat to the export supply chain.

With regard to fruits, practically all exportable avocados and mangoes are produced by smallholders and exported by small to medium-sized exporters through contract farming arrangements or brokers.

No reliable estimations exist of the total number of small producers involved in the export supply chain of vegetables to the EU market; numbers vary from 20 to 45% of the total exported volume. In addition to fruits, the position of small producers is also relatively strong in the export of Asian vegetables.

In general, it can be concluded that there is a trend towards a coordinated export supply chain of vegetables with durable arrangements between producers, traders, processors and buyers about variety, volume, time of delivery, price and product standards and quality.

2.7 Current institutional framework

Quite a number of organisations are involved in the fruits and vegetable sector and will be relevant to its longer-term development. Apart from public agencies with a regulatory mandate and other authorities, there are research institutes with particular focus on the fruits and vegetable sector while also several donors and international organisations carry out activities to (directly or indirectly) assist the sector's development. As far as the private side is concerned, the sector has two national exporters associations as well as several product market organisations at regional level and numerous formal and informal forms of collaborative production and/or marketing like self-help groups, collective marketing agreements, lead farmers, local producers' organisations etc.). Annex 2 provides a quick overview of the institutional environment of the fruits and vegetables sector.

3. Main bottlenecks and opportunities related to market access

3.1 Factor conditions

Kenya is known for its favourable conditions with regard to soil, water availability and climate, which forms an opportunity for the production and export of a wide variety of fruits and vegetables.

The technical and institutional capacity of the sector is considered to be strength to be used for its further development. In fact, this could turn out to be a decisive advantage over competitors from other countries.

The capacity to add value to fruits and vegetables is seen as a weakness and could form a bottleneck to long-term development of the sector. In order to continuously adapt and respond to changing consumer demands, an increased capacity is required to deliver more variety, specific “healthy” food, convenience and certified products so as to add value to the export products. The Netherlands is a main transit market of vegetables with many specialized companies in this area that are expected to make good business partners to Kenyan exporters.

The largest cost factor in vegetable exports from Kenya is the transport charges of airfreight, which forms a threat to the sector due to the relative distance to the EU market and/or more favourable airfreight arrangements as compared to major competitors from the Middle East and Northern Africa. The charges depend on the size, composition, destination and frequency of consignments, which poses disadvantages to small exporters in particular. Only high value crops can carry that cost and vegetables have to compete in that sense with commodities like flowers, tea and meat.

3.2 Sector-wide strategies, structure and management

The level of managerial capacity of actors and the lack of transparency within the chain are identified as weaknesses of the sector. Good farm and trade management has become of utmost relevance as a result of increased complexity of production systems and export requirements. However, exporting companies, traders, commercial growers and organisations of small producers alike, seem to suffer from a lack of good and qualified managers with specific experience and expertise in the fruits and vegetables sector.

Sourcing vegetables from smallholders and out-growers offers a number of advantages to exporters, but also brings certain disadvantages. Most common reasons to source from small producers are the relative strength in labour intensive production techniques and work motivation. Moreover, it contributes to the exporters’ flexibility and saves the trouble in land acquisition and preparation. On the other hand, sourcing entails higher transaction costs, due to amongst others scattered production sites, independent decision-making, limited technical capacity and lack of access to infrastructure.

Furthermore, the fact that contracts between exporters and out-growers are usually not legally binding, is considered a weakness by both sides. In times of relatively low production levels and/or high demand, out-growers may be inclined to sell part of their produce to a third party at higher price than in the contract. At times of relatively high production volumes and/or low demand however, exporters may not be ready to buy the volume at the price as agreed upon earlier in the contract. Yet, both exporters and out-growers may have growing reasons to

adhere to the contracts which can be seen as an opportunity to change within the sector; small producers appears to be more interested in stability of production and a guaranteed outlet for their produce than in short-term gains, whereas also exporters seem to be interested to build up stable longer-term trading relationships instead of on-the-spot trade.

3.3 Demand conditions

The total consumption of vegetables in Europe appears to be somewhat on the decline, which can be earmarked as a threat to the sector. However, the EU demand for fresh fruits increases slowly that forms an opportunity for export.

Over the past decades, the EU market of fruits and vegetables has changed significantly from traditional wholesale markets and local green grocers to a market dominated by supermarket chains and large retailers. Nowadays, exporters must be able to supply directly to large retail chains, deliver produce that meets varying standards, provide detailed production information (for example through bar codes) and have the ability to respond rapidly to changing trends and requirements.

Late 2001, leading European distributors and retailers (united in the EUREP working group) introduced standards of Good Agricultural Practise (GAP) through an integrated quality management system for agricultural production (EUREPGAP). For fruits and vegetables, just like for other products, a protocol or set of standards has been developed that regulate various aspects throughout the supply chain, which govern trade to The Netherlands. Also the export to the UK is ruled by standards and certification requirements as set by major retailers, trade associations and manufacturers united in the British Retail Consortium (BRC).

Such export requirements in fresh fruits and vegetables comprise regulations with regard to:

1. traceability (the exported product must be traceable to the farm where it is produced);
2. production site record keeping (producers must keep up to date records demonstrating all activities of production and records must be kept for a minimum period of 2 years);
3. use of certified seeds and nursery stock, resistance or tolerance to commercially important pests and diseases, and genetically modified organisms;
4. crop rotation, cultivation techniques, irrigation method and water quality;
5. machinery and chemicals for fumigation, fertilization and crop protection;
6. storage of machinery, seeds, chemicals and other inputs;
7. handling, storage and transport of the produce;
8. use of protective clothing and equipment and instructions and training to workers.

Many vegetable exporters in Kenya realized early that compliance with standards like BRC and EUREPGAP would be of crucial importance to their export position. This awareness is seen as an important strength. However, producers had to invest substantially so as to comply with standards and to become certified producers. Not surprisingly, large growers have been the first to obtain certification and smaller farmers tend to get excluded from the chain.

Several large exporting companies have reduced the proportion of production sourced from out-growers and small producers through brokers due to difficulties to comply with standards in such trade arrangements. The reliability of delivery, technical expertise, control and record keeping with regard to the use of inputs from the side of small producers and out-growers are generally considered inadequate. Supply through brokers is reduced due to the fact that traceability often cannot be guaranteed.

Apart from the increased technical requirements and standards, there has been a trend in EU market demand towards finer grades of products, “healthy food” and shelf-ready and/or ready-to-cook vegetables. Instead of threatening the Kenyan export, this turns out to be an opportunity as the horticulture industry in Kenya has been able to respond quite well to such changes in the demand.

The ability to respond rapidly to changing trends and requirements in the export market has become a crucial element to the competitive position and needs to be further strengthened for example by building up longer-term trade relationships of commitment and trust between producers, traders and retailers both on Kenyan and European side.

The EU market of fruits and vegetables is competitive while some sources claim that the level of saturation has been reached in a number of products. This is felt as a threat by exporters to existing supply structures. Kenyan exporters face increasing competition (e.g. from Morocco) and have seen declining profit margins over the past years which urges them to innovate.

3.4 Supportive conditions

The physical infrastructure required for an efficient functioning of the export supply chain like roads, electricity, telecommunication, market places, storage and handling facilities have improved to a large extent. Although the need for further improvement of such facilities is still there, these conditions are considered a relative strength by exporters as compared to other countries in Africa.

The Government has played an important role contributing to a business climate which attracted foreign investors and gave the private sector the opportunity to take initiatives developing the export supply chain. However, the fact that export of fruits and vegetables is subject to many taxes and levies forms a threat to this trade. A recent study by the Fresh Produce Exporters Association of Kenya (FPEAK) states that before horticultural exports finally leave the country, they have been subjected to as many as 38 charges, which requires urgent streamlining. At present, exporters have to deal with at least four major players at national level and the division of responsibilities is not that clear cut: the Horticultural Crop Development Authority (HCDA) for export licences; Kenya Bureau of Standards (KEBS) for quality control and certification; Kenya Plant Health Inspection Service (KEPHIS) for seed and plant health inspection and phytosanitary certificates; and the Kenya Revenue Authority (KRA) for certificates of origin, duties and taxes. Administrative processing of exports is quite well organized, but unexpected changes in forms or procedures cause hitches that fresh export cannot afford. The more institutions involved in the export process, the higher this risk.

Increased complexity of production systems and export requirements induced a demand for more specialized and cost effective supportive services like technical assistance, market information, soil analysis, transport and the like, especially from smallholders. However, the supply and quality of these services are not yet up to the standards required by the sector, which is a weakness with regard to its further development.

Horticultural producers and exporters in several countries benefit from special financial investment programmes with relatively favourable lending conditions, usually through a national development bank. In Kenya such a support program (opportunity) is absent.

As an African, Caribbean and Pacific (ACP) country, Kenya benefits from preferential trade conditions with the EU in horticultural crops (Cotonou Agreement). In 2002, the negotiations started on Economic Partnership Agreements (EPAs) to govern trade and investment relations with the EU. Although these EPAs are expected to be beneficial to the ACP countries and thus not to lead to less favourable trade conditions, the present situation appears to entail quite some uncertainty and rumours amongst exporters, producers and investors.

4. Strategies for sustainable development of the sector

The fruits and vegetables sector as a whole and the export supply chain from Kenya to the EU market in particular, has quite a strong international market position and has shown positive competitive performance over the past years. However, specific efforts to adapt to changing market circumstances and to continuously innovate are of crucial importance to long-term development of the sector and its export.

This requires an effective, efficient and coordinated effort by public and private stakeholders in the export chain.

Such efforts would be in line with the Government of Kenya's overriding public strategy for revitalizing the agricultural sector in order to achieve progressive reduction in unemployment and poverty. As a matter of fact, Kenya's Poverty Reduction Strategy Paper as well as its Economic Recovery Strategy took note of the special role that the horticulture sector plays in achieving positive economic results.

This study indicates that the long-term challenges to maintain and to improve the sector's competitive performance have three main dimensions:

- strengthening long-term business relationships and transparency;
- professional management throughout the supply chain; and
- innovation and value addition.

4.1 Strengthening long-term business relationships

In order to at least maintain the sector's current competitiveness and aim for improvement, it has been stated by mostly stakeholders at the private side that the international fruits and vegetable trade has changed from a straightforward and flexible business towards a more complex production and marketing system. As a result the required level of trust and efficient collaboration amongst different stakeholders in the supply chain has increased. This also implies a shift from simple buying and selling arrangements towards a supply process with more mutual responsibilities and dependencies. The export of vegetables nowadays requires coordinated supply with long-term arrangements between producers, traders, processors and buyers about variety, volume, time of delivery, price and product standards and quality.

As it tends to be more efficient to invest in business relationships with a limited number of reliable business partners, this trend clearly turns out to have negative consequences for small producers and out-growers and might have an adverse impact on the contribution to poverty reduction by the fruits and vegetables sector.

Due to negative past experiences with producing in cooperatives, many small farmers are inclined to work individually. However, small producers realise that collaborative production and marketing arrangement are necessary for them to continue to play a role in horticulture export chains. In fact, various collaborative arrangements are now being explored.

4.2 Professional management throughout the supply chain

The management problem is broadly felt by all actors in the export supply chain. Especially vegetable trading companies and larger commercial farms face difficulties in filling their managerial positions with professionals with the required sector-specific expertise and

practical experience. The larger companies may have the opportunities and resources to invest in proper management systems and professional competency of their managerial staff. Still, they find it difficult to hire in good managers and often have to look abroad.

Medium scale producers and companies do not reach such levels of export volumes and turnover, which would allow adequate investment in the management system. They are facing even higher constraints in hiring adequate professional managers and are now confronted with a major business disadvantage.

Small producers realize that they will be able to supply produce for the relatively lucrative export only if they improve their farm and marketing management. Individually these small producers may not stand much of a chance, but may well succeed through collaborative working arrangements. Furthermore, the small producers obviously require new management structures to collectively apply for and comply with EU market standards like EUREPGAP.

4.3 Innovation and value addition

The export position of Kenyan vegetables on the EU market is under pressure of competition from exporters in countries like Egypt, Morocco, South Africa, Senegal, Ethiopia and Spain. At the same time, large retailers and importing companies in the EU tend to establish global sourcing systems with trade arrangements focused on the long-term. In order to keep up their competitive performance, Kenyan producers need to continuously adapt their production and marketing strategies to the developments in other exporting countries as well as to trends in their main export market of fruits and vegetables.

Kenya is expected to have the potential to maintain its leading position in a few fresh products in which it could be a bulk provider. For products where Kenya has a year-round production, gaps left by other producing countries can be filled.

On the other hand, there are increasing opportunities to satisfy more sophisticated demand for finer grades, novelties, mixed vegetables, “healthy food” and convenience products (shelf-ready or even ready-to-cook). These developments call for market research, monitoring and adequate responses in the area of chain innovation and technologies for value addition.

It is considered a common interest by many stakeholders to stimulate and facilitate research and development in innovation of products, production systems, logistics, chain management, marketing strategies and other forms of value addition. In fact, this kind of innovation and value addition is best served through joint action by actors in the export supply chain and is therefore rather called co-innovation. In this regard, the public sector has a role to play as facilitator and all public investments are to then trigger productive investment by the private sector (both national and foreign investors).

5. Topics for public-private partnership activities

5.1 Criteria for public-private activities

In this paragraph a selected number of possible activities is introduced that require involvement of both public and private stakeholders in the export supply chain of fruits and vegetables from Kenya to the EU market and would thus fit as projects under the public-private partnership program.

The following selection criteria are suggested for identification of public-private partnership activities:

- Commitment (financially, persons) and high priority by a wide range of public and private stakeholders in the sector
- Expected positive impact on market access 3-5 years
- Active participation of public and private stakeholders
- Spin-off impacts on national and regional market development and poverty reduction
- Contribution to long-term and sustainable development of the sector concerning People-Planet-Profit
- No overlap and where possible linkages with existing projects and activities

Based upon discussions with the various stakeholders the following five potential activities for joint public-private implementation are presented:

1. Enabling long-term business relationships and productive partnerships;
2. Developing a business plan for sector-specific technical support and management training;
3. Developing targeted export support services for small producers and out-growers;
4. Strengthening the Kenyan phytosanitary services and streamlining the phytosanitary inspection between Kenya and its main export countries;
5. Promoting market driven research and development on innovation and value addition.

5.2 Enabling long-term business relationships and productive partnerships

Objective:	To develop, promote and adopt business relationships with focus on long-term trade and innovative forms of export partnerships.
Origin of demand:	Kenyan public sector, Kenyan producers' organisations, Kenyan exporting companies, Dutch importing companies and Dutch direct foreign investors.
Background:	Kenyan public agencies and producers organisations are interested to ensure continued participation of small producers and out-growers in the export supply chain and improve benefits accruing; Kenyan exporting companies and Dutch importers are keen to improve transparency and reliability in the chain with regard to quantity, quality and standards (traceability) Dutch direct foreign investors are especially interested to improve trade stability and build up productive partnerships.
Target group:	Kenyan public agencies like MoA (horticulture department) and HCDA Producers and Exporters Associations (FPEAK and ADHEK) Kenyan exporting companies Organized out-growers and small producers Dutch importing companies and retailers Foreign direct investors
Implemented by:	
Preconditions:	Commitment from HCDA, FPEAK, ADHEK and at least 5 individual medium to large exporters as well as 5 individual importing companies.
Linkages to existing projects:	Horticultural Development centre (HDC-Fintrac) Activities by CARE, Technoserve, VEGPRO, USAID (see annex 2)

5.3 Developing a business plan for technical support and management training

Objective:	To develop a common plan of action (including financial budget) for a sector-specific capacity building programme for technical advisors and professional managers.
Origin of demand:	Kenyan producers' organisations, Kenyan exporting companies and commercial growers, Dutch importing companies and Dutch direct foreign investors.
Background:	Producers' organisations face increased market requirements while their current organisational skills, networking capacities and access to technical support are not up to the level to effectively respond. According to exporting and importing companies the international trade has become more complex which make them draw more heavily on professional managers and advisors on specific technical issues Commercial growers and foreign direct investors particularly claim to have a shortage of professional farm managers.
Target group:	Current and future farm managers and supervisors; Current and future technical service providers; Commercial farms, exporting companies, producers organisations etc.
To be implemented by:	Training institutes in close collaboration with commercial farms, exporters, importers, producers organisations, FPEAK, ADHEK and public agencies
Preconditions:	Commitment from HCDA, FPEAK, ADHEK and at least 5 individual commercial farms, exporters and importing companies Willingness from the Ministry of Agriculture and/or education in Kenya to financially contribute to the actual investment in such a training programme as well as interest from other sides like international donor organisations to support this; in fact, this project would be limited to the development of a plan to be presented for partial public funding
Linkages to existing projects:	Current training programmes at the Tegemeo Institute, the Kenya Agricultural Research Institute and/or Jomo Kenyatta University of Agriculture and Technology,

5.4 Developing targeted export support services for small producers and out-growers

Objective:	To develop instruments in accordance with market developments targeted at particular needs of small producers and out-growers with regard to their continued participation in the export supply chain
Origin of demand:	Kenyan and Dutch public agencies and Kenyan producers organisations
Problem holders and their perspective:	Public agencies are interested to ensure continued participation of small producers and out-growers in the export chain as a contribution to poverty reduction Producers' organisations are keen to provide support services and instruments in accordance to market developments Small producers have a direct interest in delivery of targeted services which enable them to participate in the export supply chain Exporting companies currently depend to certain extent on production by small producers and out-growers (20 – 45%) due to the inadequate production capacity of medium and large farms
Target group:	Producers' organisations, brokers, providers of business support services and exporters
To be implemented by:	
Preconditions:	Commitment from ADHEK or at least 2 exporting companies, as well as from producers' organisations and support service providers
Linkages to existing projects:	Many activities promoted and funded by international donors (see annex 2)

5.5 Strengthening Kenyan phytosanitary services and streamlining the phytosanitary inspection between Kenya and its main export countries

Objective:	To improve the quality and efficiency of the phytosanitary services system in Kenya and streamline phytosanitary inspections in Kenya with the systems in its main importing countries
Origin of demand:	Kenyan public agencies, Kenyan exporting companies and Dutch importers
Background:	The Kenyan public sector is aware that multiple agencies are involved in the phytosanitary system which requires coordination; moreover, it may need physical investments due to increased export requirements; Kenyan exporting and Dutch importing companies indicated that an updated and efficient phytosanitary system in Kenya will be an increasingly important determinant of future export and identified inefficiencies in the process of phytosanitary inspection between Kenya and importing countries.
Target group:	Agencies involved in the phytosanitary system, exporting companies, producers' organisations, importing companies and large retailers.
To be implemented by:	
Preconditions:	Commitment from MoA, KEPHIS, KEBS, HCDA, PCPB, Ministry of Health amongst others at Kenyan public side; Commitment from FPEAK, ADHEK, selected importing companies and retailers to contribute to the streamlining process.
Linkages to existing projects:	Closely linked to EUREPGAP and BRC standards, KEBS recently developed a national Code of Good Agricultural Practises and some 120 standards for horticultural and related produce which are supported by FPEAK, but now require implementation and control

5.6 Market driven research & development on innovation and value addition

Objective:	To develop and implement sector-specific efforts on innovation and value addition
Origin of demand:	Kenyan public agencies, Kenyan producers organisations, Kenyan exporting companies, Dutch importing companies and direct foreign investors
Problem holders and their perspective:	Kenyan public agencies are interested to ensure participation of small producers and out-growers in the export chain; moreover, sustainable employment opportunities in the industry are at stake (on larger farms and in processing units etc.) Producers organisations expect to supply innovative products suitable to small-scale farming; furthermore, they expect technologies of value addition to take away some pressure that characterizes fresh export; Foreign investors, exporting and importing companies state that the current trend towards coordinated export supply chains induces a need for co-innovation and development of long-term arrangements between chain actors about product, production system, logistics, traceability, marketing strategies, product standards and quality etc. Exporters see value addition as a way to improve export priority of fruits and vegetables as well as their capacity to bear air freight costs Kenyan exporters and Dutch importers and direct investors suggest that the ability to respond to changed market circumstances will be a crucial determinant to future trade and that Kenya has the potential to be an innovator or at least an early-adapter
Target group:	Exporting companies, producers' organisations, importing companies and large retailers.
To be implemented by:	
Preconditions:	Commitment from research institutes, producers' organisations and exporters as well as from prospective demanding parties like importers and large retailers.
Linkages to existing projects:	Research activities at the Tegemeo Institute, Kenya Industrial Research and Development Institute, Kenya Agricultural Research Institute and/or Jomo Kenyatta University of Agriculture and Technology

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Annex 2 Institutional framework of the fruits and vegetables sector

Organisations	Main activities with regard to the sector
Public sector	
Ministry of Agriculture (MoA; Horticulture Department)	Policy development, legislation, development of a regulatory framework, implementation of projects and extension services
Ministry of Trade & Industry	
Ministry of Health	
Ministry of Local Government	
Ministry of Roads, Transport & Communication	
Ministry of Cooperative Development and Marketing	Amongst others: legislation, governance of cooperatives and financial policy for the cooperative system a.o.
Horticulture Crops Development Authority (HCDA)	Overall executive mandate to regulate the development of the horticulture sector, advisory services, promotion of production and marketing (incl. cold-storage, transport and a national marketing network especially for small producers), and issuing of export licences
National Environmental Management Authority (NEMA)	Implementation of environmental laws and regulations; for example through environmental impact assessments by the industry
Kenya Plant Health Inspection Service (KEPHIS)	Inspection service to ensure quality inputs and sanitary requirements
Pest Control Produce Board (PCPB)	Regulation of import, export, manufacture, distribution and use of pest control products
Kenya Bureau of Standards (KEBS)	National mandate to develop, set and enforce product standards and codes of practise
Kenya Revenue Authority (KRA)	Taxation
Kenya Agricultural Research Institute (KARI)	Formal agricultural education and research
Tegemeo Institute (Egerton University)	Research and training programmes
Jomo Kenyatta University of Agriculture & Technology (JKUAT)	Research and training programmes
Kenya Industrial Research and Development Institute (KIRDI)	Formal agricultural education and research
International Centre of Insect Physiology and Ecology (ICIPE)	Research and training programmes
Private sector	
Fresh Produce Exporters Association of Kenya (FPEAK)	Lobbying for interests of the industry as a whole (including flowers), marketing information, technical support and promoting compliance to international horticulture standards

Association for Developing Horticultural Exports of Kenya (ADHEK)	Networking and lobbying for interested of mainly small and medium exporters and growers (some 20 per end of 2004), technical support, collective marketing etc.
Agrochemicals Association of Kenya (AAK)	Lobbying for interests of importers, manufacturers and traders of Agrochemicals
Development projects	
Kenya Horticultural Development Centre: HDC – Fintrac, funded by USAID	Focus on technical support in production, innovation and processing, compliance to export standards, and linking (especially smaller) producers and exporters
Kenya Business Development Services Project, with USAID	Business development and technical support targeted mainly at fruits like avocados, mangos and passion fruit
Business Services Marketing Development Project (BSMDP), funded by DFID	Support in market access and business services
Integrated Pest Management Programme, funded by the EU	Training in integrated pest management, produce quality and compliance to EUREPGAP standards
EUREPGAP training project, funded by Netherlands Ministry of Foreign Affairs	Capacity building compliance to EUREPGAP standards targeted at small growers and producer organisations
Horticultural Produce Handling Facilities Project (HPHFP), funded by JICA	Focus on storage, transport and processing facilities and other productive infrastructure
Eastern Province Horticultural and Traditional Food Crops Project, funded by IFAD	Focus on technical support, financial and marketing services as well as infrastructure like rural roads, irrigation systems and market facilities
Producers organisation and marketing, executed by Technoserve	Focus on organization of small growers and their marketing
Rural organisations and agri-services development Project, funded by CARE	Focus on organization of small growers and their marketing
Partnership project with VEGPRO Ltd, co-funded by CARE and USAID	Focus on organization of small growers and their marketing
Private sector development in Agriculture, funded by GTZ	Focus on strategic development of the sector and strengthening institutions
Export processing villages, as funded by UNDP	Focus on production and processing by smallholders
Etc.	
Export certification	
Africert, facilitated by GTZ	Certification of horticultural produce
Agribusiness and Allied (K), facilitated by DFID	Certification of horticulture produce
Bureau Veritas Quality Assurance	Certification of horticulture produce