Case study on Uganda

Prepared by

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October 2009
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1.0 Introduction

A summary of recent macroeconomic developments in Uganda

Trade plays an important role in the economy of Uganda. Horticulture production and trade in Uganda have received some considerable attention over the last couple of years. This fits in well with the now established notion of trade and its impact on poverty. Many schemes are being evaluated and reviewed to establish how the eradication of poverty can be strengthened especially in least developed countries (LDCs).

Poverty concerns are on the agenda of the Government of Uganda. Uganda has a poverty eradication strategy that is outlined in the framework document, the poverty eradication action plan (PEAP). This is a macroeconomic framework for steering economic activity in order to achieve development and eradicate poverty. This framework outlines a role that trade can play in wealth creation and in the process in poverty reduction. Poverty trends in Uganda show significant reductions from 56% in the 1990s to about 38% in 2003 and an increase lately. In order for Uganda to meet the challenges of poverty reduction targets of the MDGs, much work still has to be done.

Although trade offers a number of opportunities, there are challenges too. Its contribution to poverty reduction requires a framework within which this can be achieved. It is often possible to increase trade without necessarily reducing poverty. In that regard deliberate actions and policies are required to ensure that benefits from trade do not only trickle down but actually flow to the poor sections of society. Efforts have shown that certain sectors offer better scope for poverty reduction through trade. In this paper, we focus on prospects for horticulture to contribute to poverty eradication in Uganda.

This paper assesses national policies and strategies including the role and potential contribution of horticultural sector to the socio-economic progress in Uganda; reviews and discusses constraints to horticultural sector’s contribution to growth and development; examines and analyses production techniques in use and transportation systems available including their impact on exports from the horticulture sector; it also explores potential for intra-African trade in horticulture including existing challenges as well as the scope for improving Uganda’s participation in the global value chain for horticulture products. Finally, it will draw conclusions with policy recommendations that
may make the aim of improving and elevating the performance of horticulture realisable. These points (objectives of this exercise) are summarised as below:

- assess the national policies and strategies as well as the role and potential contribution of horticultural sector to the socio-economic progress of Uganda,
- review supply- and demand-side constraints (most important ones) undermining the contribution of the sector to the growth and development prospect of a country,
- examine production techniques used and available transportation systems including storage facilities as they impact horticultural exports as defined above;
- explore the potential for intra-African trade in horticulture and the challenges thereof,
- explore the potential for improving the participation of the country in the global value chain for horticultural products, and
- provide policy conclusions and lessons learned as well as recommendations for action at the national, regional and international levels.

The paper is organised in two sections. This section outlines trade performance in Uganda in general and horticulture trade in particular. This is designed to provide a basis and context on which the analyses and assessments in this paper are carried out. Section 2 assembles and assesses issues in horticulture production and trade including national policies, constraints to horticulture’s contribution as well as its role and potential contribution to Uganda’s development.

1.1 Definition of horticulture

It is essential that we establish or adopt a common understanding of what is meant by horticulture. There are many definitions that have been given of horticulture. Many can be found on the web and some will raise questions than improve our understanding. The Stephen F. Austin State University (Texas)\(^2\) defines horticulture as:

“…..the science, business and art of growing and marketing fruits, vegetables, flowers, and ornamental plants. It’s unique among plant sciences because it not only involves science and technology, but it also incorporates art and design principles”.

while Louisiana State University’s\(^3\) definition is that:

\(^{2}\) [www.horticulture.sfasu.edu/whatishort.htm](http://www.horticulture.sfasu.edu/whatishort.htm) - Stephen F. Austin State University website  
\(^{3}\) [www.lsu.edu/horticulture/whatis.html](http://www.lsu.edu/horticulture/whatis.html) - Louisiana State University website
Horticulture is the science and art involved in the cultivation, propagation, processing and marketing of ornamental plants, flowers, turf, vegetables, fruits, and nuts. It is unique among plant sciences because it not only involves science and technology, but it also incorporates art and principles of design.

Both definitions highlight that horticulture, is (can be) divided into two groups on the basis of crop and plant use i.e. - edible plants (fruits, vegetables, nuts) and aesthetic plants [meaning those grown for their beauty]. The branch of horticulture which deals with the production, storage, processing, and marketing of vegetables, such as sweet potatoes, lettuce, peppers, and sweet corn, is called olericulture. The science and practice of fruit production is called pomology. Floriculture is the cultivation and management of cut flowers, flowering plants, and foliage plants.

Equipped with this understanding, this paper’s chosen focus in the analysis of the Uganda case is fruits. Achterbosch *et al* (2007) attempted to answer the following questions using evidence from Uganda and Vietnam.

- Given the current revival of agriculture as an important engine for growth, and the identified potential for horticulture, should emphasis be placed on small farmers (family agriculture) or on larger more commercial agriculture enterprises from the viewpoint of poverty alleviation?
- What are the constraints to overcome, or opportunities to be created, by means of institutional development in order to achieve the potential for poverty alleviation and economic growth in rural areas?

To a very large extent, these questions also form a major focus in the current paper. The interest is to establish whether or not horticulture can contribute to poverty eradication or reduction and identify constraints and challenges which would then be the focus of policy to enable horticulture’s role in poverty eradication to be fully realised.

1.2 Uganda’s Trade Performance

Global volumes and values of trade have grown significantly over the last two decades. Africa has shared in some of the world growth of trade but still lags behind the rest of the world contributing only a very small volume by global standards for its size. Besides, this growth was most evident in the trade of agricultural commodities.

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4 With institutional development we mean the development in formal and informal rules that impact on institutional arrangements such as agreements and contracts within a value chain or organizations such as producers organizations.
Uganda embraced economic reforms that included trade liberalization to stimulate economic performance and trade in 1980s. This was predicated upon the knowledge and acceptance that trade can contribute to economic development, improve incomes and lead to poverty reduction. Trade liberalization lowered tariffs which were reversed when the East African Customs Union came into force in 2005.

The economic reforms ushered a long period of macroeconomic stability from 1992. Uganda achieved commendable real GDP growth rates averaging 6.9% during 1989/90-1998/99. However, it is now realized that trade liberalization needed accompanying policies to encourage the growth of production and increase trade. Also, there was significant trade growth; exports increased from US$176million to US$684m in the period between 1990/91 and 1996/97. Thereafter merchandise exports fell and then stagnated for several years before they began to pick up in 2003/04, reaching US$786m in 2004/05.

Agriculture is the lead productive sector and the largest source of Uganda’s merchandise exports. Production arrangements in Uganda are characterised by small holder agriculture and an absence or insignificant contribution of large scale commercial farming. As a result the leading exports are mainly agricultural: coffee, cotton, tea, and tobacco while the non traditional exports (NTEs) are fish, cut-flowers, electricity, cereals, hides and skins, cobalt and beans. NTEs grew steadily from 1992/93 to 1996/97 and declined before continuing the upward trend again. By 2000/01 the NTEs had surpassed traditional exports as the dominant export category. Fish was the dominant NTE; it experienced remarkable growth and by 2004/05, fish had overtaken coffee as the largest merchandise export.

Horticulture exports are currently dominated by flowers with fruits and vegetables appearing insignificant. There was however marked growth in fruit and vegetable and for Africa, this was very dramatic. What does this growth mean? What caused it and can this be harnessed through policy to offer opportunities for development and poverty

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5 According to the PMA, the structure of agricultural production in Uganda indicates that 75% of marketed output is produced by subsistence farming sector while 20% is produced by semi-commercial farmers and only 5% by the commercial farming section of agriculture.
reduction? The performance of horticulture exports against the main exports is shown in table 1 below.

Thus as will be seen in Table 1 below, fruits and vegetables do not appear. The volumes and values are currently insignificant to warrant any real mention. However, the Uganda Bureau of Statistics (UBOS) collects disaggregated data which makes reporting on each category possible. Beans exports have declined from a substantial US$11.7 million in 1994/95 to US$1.5 million in 2001/02 before rising again.

1.2.1 Horticulture trade performance

Uganda produces and exports a very broad range of horticulture products in the three main groups: flowers, fruits and vegetables. The production of flowers is very capital intensive and in a way requires care that eliminates this from being grown by small holder producers although they would easily meet the land requirements. As such the group of farmers are very well organised under the Uganda Flower Exporters Association (UFEA). Many tropical fruits easily grow in Uganda. The main fruits are avocado pears, bananas, mangoes, melons, pawpaw, pineapples, and passion fruit

As can be seen in table 1, the horticultural sector has almost tripled export earnings for Uganda over the last six years. Fresh flowers, plants, fruits and vegetables now account for around $19 million worth of exports annually. Floriculture exports in particular have grown by 475% in value since 1995.

Vanilla, exported as a semi-processed product, is the other star performer in the sector. It is particularly significant, since it is one of the few horticultural export crops for which small-scale growers in remote areas have a comparative advantage over large-scale agribusiness investors.
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<td>TOTAL</td>
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<td>459.9</td>
<td>458.3</td>
<td>474.0</td>
<td>508.5</td>
<td>670.9</td>
<td>886.3</td>
<td>1042.5</td>
<td>1520.5</td>
<td>1752.3</td>
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*Note:* 1/ Exports figures for 2007/08 are estimates

2/ Most of the recorded gold exports are re-exports from DRC, although there are 3 gold mines in Uganda.

The fresh fruit and vegetable export market has grown beyond the specialised ethnic buyers in Europe where Matoke and chilli (including hot pepper) were the largest products shipped making up 65% by volume. While Europe remains the largest destination market, others have come on the scene and are growing in importance. Matoke is sold predominantly to the Ugandan expatriate community in Europe. The matoke banana is quite different to plantain (cooking) and Cavendish (dessert) bananas which are imported in large quantities to northern markets (IDEA, 2002). The product faces challenges and is expensive, because of high air freight charges from Uganda to Europe. It has not been accepted by indigenous Europeans and therefore only limited volumes, which cannot alter the freight charges, are shipped.

IDEA (2002) indicates that there were 20 firms in floriculture, growing 130 hectares of flowers in custom-built greenhouses, employing directly more than 4,000 permanent staff. More than three times this number benefit from associated service industries. There are no small-scale growers of flowers since the investment requirements are prohibitive. All flower farms are located within two hours of Entebbe Airport.
Fresh fruits and vegetables for export are grown by less than 3,000 small-scale growers, who sell regularly or intermittently to opportunistic export traders. Since most growers have no irrigation, their earnings depend upon weather conditions as well as market demand. The traders operate with minimal facilities and sell to price-driven fringe importers, usually located in the wholesale markets of UK and Holland. This is a shrinking business, since the wholesale markets are gradually losing market share to supermarket chains, which operate procurement contracts with a small group of approved importers.

The volume of flower exports between 2003 and 2007 fluctuated and ended the period on a volume lower than the beginning. In 2006 flower export earnings fell by 22% to $27m from $35m in 2005. This trend is also reflected in the value of flower exports where provisional figures for 2007 are lower than the value for 2003 exports. The fluctuations were caused by unfavourable weather that ravaged farms and lowered export volumes by 9%. According to the Uganda Flower Exporters Association (UFEA), lack of new investments and high power and production costs that prevailed in 2005 and 2006 undermined the competitiveness of Uganda’s flowers in European markets. The power problem lowered the quality of flowers and increased the cost of doing business.

Fruit exports were on a decidedly upward trend over the five year period and grew by more than 352 per cent of the 2003 value. In volume terms, fruit exports rose by more than 1,600 per cent over the same period. Vegetable exports rose 115 per cent between 2003 and 2007. The value of the vegetable exports went up by 99 percent over the 5 year period. The trends shown in the growth of horticulture exports is obviously impressive. However, in absolute value terms, they indicate small value.

In terms of markets, flowers are destined for markets in Europe with the Dutch Flower Auction floors taking up the largest share.

Vegetable exports are mainly tomatoes shallots and onions, cauliflower and headed broccoli, white and red cabbages, kohlrabi, kale...etc, lettuce, (excl. cabbage lettuce), peas, beans, mushrooms, fruits of genus, capiscum or pimenta which are exported fresh or chilled.
### Table 2: Horticulture exports by volume (Kgs) and value (USD) (2003 – 2007)

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<tr>
<td>Flowers</td>
<td></td>
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<td></td>
<td>5,267,489</td>
<td>4,988,717</td>
<td>6,162,304</td>
<td>6,091,872</td>
<td>5,663,414</td>
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<td>Fruits</td>
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<td></td>
<td>7,360,802</td>
<td>7,821,244</td>
<td>3,062,473</td>
<td>1,295,001</td>
<td>425,768</td>
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<td>Vegetables</td>
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<td>45,393,230</td>
<td>30,525,070</td>
<td>30,338,734</td>
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<td>30,338,734</td>
<td>28,003,018</td>
<td>21,080,180</td>
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### Additional Notes
Of the products shown in table 2, vanilla, cocoa and papain can be produced by small-scale farmers in many parts of the country. Also fruits and vegetables are amenable to growing by small holder and subsistence farmers. They have the potential to impact and change the livelihoods of subsistence farmers in rural areas. Fruits and vegetables are an important source of income and can be used to transform rural communities. In the next section, we shall review some of the national policies that influence the production of fruits and vegetables and in the process change the life styles of poor and land based rural communities. It is for this reason that we have chosen to focus on fruits and vegetables production and trade. As we shall see later the leading growing regions are rather restricted and conditions for expansive production could be improved with adoption of modern technologies for growing these. Their potential as supplemental cash crops to coffee has been largely untapped. Fresh flowers and plants generally require significant investment capital, but offer high quality employment, and opportunities for outgrowers to supply commercial farms. This makes them a preserve for those who have cash or have access to capital.

2.0 Issues in Fruit and Vegetable trade in Uganda

2.1 The National Policies and Strategies: the Role and Potential Contribution of Horticultural Sector to the Socio-Economic Progress of Uganda

Policies promoting production and trade in fruits and vegetables
There is a need to improve the policy and economic environment in Uganda. This is evidenced by a number of interrelated organisations – some permanent and others of a project type – that are working to address constraints to business development which should lead to improvements that can benefit many sectors of the economy. Uganda's development focus is to eradicate poverty among the country's population. Its plan for achieving this is outlined in the Poverty Eradication Action Plan (PEAP), which has been the main planning framework. Many sectoral development plans have been developed under framework.

Overall, it is clear that there is no policy on fruits and vegetable production and trade per se but aspects of the policy can be found by inference in various institutions. This section highlights some of the policies that promote agriculture and could by extension impact on fruit and vegetable production and trade. The issues for production and trade cease to
be trade policies only. According to Blake et al (2001), the policies that are critical to increasing exports of agriculture in general and horticulture exports in particular become not simply a trade policy issue but also an issue of agriculture policy. The related issues include providing education and extension services to small, dispersed farmers, and encouraging adoption of the most appropriate technology to ensure high quality output. The policies in question are those dealing with production and facilitation of trade in the country. In many respects, these derive from Uganda’s poverty eradication ambitions outlined in the PEAP which guides and influences many institutions’ strategies and plans and provides a convergence where all policies are designed to work towards achieving the objective of eradicating poverty.

There are other policies and frameworks outside the agricultural sector which apply to and try to address overall/national production and trade issues. In addition, there are other organisations which are not necessarily directly involved in policy although they have an interest in and might bring about increased production and trade.

### 2.1.1 Poverty Eradication Action Plan

As highlighted above, the PEAP, the government Poverty Reduction Strategy Paper (PRSP) is the major strategy for the government to transform the Ugandan economy. It focuses on and is guided by the desire to eradicate poverty. The PEAP has five pillars and Pillar 1 and Pillar 2 are the relevant ones for this study. Pillar 1 deals with economic management while Pillar 2 deals with production, competitiveness and incomes. Both highlight the need for continued growth in private investment and trade in Uganda in order for it to meet the objective of rapid and sustained GDP growth. A very large part of the population is engaged in subsistence agriculture at its broadest context and not necessarily targeted especially for fruit and vegetable production and trade. Fruits and vegetables can make a difference to the livelihoods of rural based subsistence farmers.

Since the PEAP is a guide for other government policies and is implemented through the implementation of various national policies, it is not possible to assess the impact of the PEAP on fruit and vegetable production and trade. Its influence should be seen in agricultural and trade policies.
2.1.2 Medium-term Competitiveness Strategy and Competitiveness and Investment Climate Strategy

Other policy interventions will be required to relax constraints and ensure supply response. The Competitiveness and Investment Climate Strategy is concerned with creating an environment in which business can thrive. In agriculture these include supply/provision of inputs, improved infrastructure and better institutional support. The reference to infrastructure would depend on financial and budgetary provision which fall under the ministry of Finance. Added to infrastructure is the funding or resources for implementation in each district. Again this is the responsibility of the ministry of Finance. In this regard, the Medium-term Competitiveness Strategy had the objective to reform infrastructure provision, financial system to better service the business sector’s requirements, the tax administration system and commercial judicial system. A follow up arrangement to the MTCS is the Competitiveness and Investment Climate Strategy (CICS) (2006-2010), which focuses on competitiveness and investment climate. It has a vision to increase export earnings to US$2 billion per annum. Since the CICS targets removing barriers to business operations and creating an environment conducive to business, its impact on trade in general and on fruits and vegetables trade in particular is difficult to measure. The barriers to production and trade which impact on fruit and vegetable trade are still very much in existence. CICS was launched in 2006 and appears to have not made much impact on removing the barriers to production and trade so far.

2.1.3 Plan for Modernisation of Agriculture (PMA)

Perhaps the most elaborate strategy for the transformation of subsistence agriculture into commercial farming is being pursued through the PMA. It is a multi-sectoral policy framework for government action to transform small-scale agriculture in Uganda that was launched in 2000. It seeks to contribute to Pillar 2 of the PEAP which is concerned with directly increasing the ability of the people to raise their incomes. This a broad strategy under the ministry of Agriculture aimed at changing the way the subsistence sector views and approaches agriculture. The PMA was established in response to perceived failure of macroeconomic strategies to reach the productive sectors and deliver on poverty eradication objectives. The economic growth generated in the mid-1990s was not reaching the majority of poor people who earn their livelihood from agriculture and thus PEAP proved inadequate to deal with poverty.

\(^6\) MTTI (2005) The Marketing and Agro-processing Strategy (MAPS) of the PMA
The PMA is a key document which details measures for production and competitiveness and provides a framework for transforming subsistence agriculture to a profitable and competitive level in Uganda. It seeks to increase incomes and improve the quality of life for subsistence farmers and improve food security at the household level, provide gainful employment and promote sustainable management of natural resources. To achieve this, agriculture must be transformed to make it a key poverty eradication instrument, decentralising implementation to the district level, reducing and removing direct government involvement in commercial aspects of agriculture, as well as supporting dissemination and adoption of productivity enhancing technology.

While this plan is under the ministry of Agriculture, the actual implementation requires resources at local level – districts where production actually takes place. The work and role of the Ministry of Agriculture especially its crop production department comes into sharp focus. The PEAP unifies the focus of all these ministries towards one important goal of driving and achieving economic development and reducing poverty in Uganda to a 10% level by 2017.

It is quite clear that while the objectives of this plan are transformation and commercialisation, it is not specifically designed for horticulture but for the entire agriculture sector. However, more than any other sector, the horticulture sector appears the easiest to commercialise. Floriculture is essentially about commercial production of flowers. In the context of rural development and poverty eradication or contributing to the socioeconomic progress of Uganda, this sub-sector can only contribute through employment creation. Its contribution to socio-economic progress of the majority of Ugandans in rural areas is limited. It is by and large modern and integrated in the international markets which are the consumers of flowers grown in Uganda. It is highly trade oriented and producers are linked to global value chain. It is probably the least of the horticulture subsectors that could be the focus of a study such as this one. Fruits and vegetables have a chance, if scaled to the right levels to make significant contributions to socioeconomic progress of the majority of the population leaving in rural areas. For this reason, they are the focus of horticulture that this study has chosen.
2.1.4 Agriculture Policies

The lead institution in the formulation of agriculture policies and supervision of production performance is the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Agricultural policy is formulated in accordance with both the PEAP and PMA. The mission of MAAIF is to support efforts to commercialise the sector, while its specific mandate is to guide, support and promote the production of crops, livestock and fisheries through the provision of services primarily focussed on resource-poor farmers/ fisherfolk. In this regard, trade policies relating to agricultural production should come alive and encourage trade of produce through increased production. Fruit and vegetable production fall under MAAIF’s department of Crop Production and Marketing. Other key related or affiliate organisations relevant to the production of fruits and vegetables are the National Agricultural Research Organisation (NARO) and National Agricultural Advisory and Development Services (NAADS).

**Draft Horticulture Production Policy**

There is a draft horticulture policy and a draft strategy on fruit and vegetable production developed in 2006. Its review of the current situation in the horticulture sector shows that the largest segment of horticultural production comprises an assortment of tropical fruits such pineapples, bananas, passion fruit, pawpaw, avocado pears, mangoes, citrus and jack fruit. A variety of vegetables including cabbage, tomatoes, onions, capsicum, chillies, egg plant, beans and other local/indigenous types are also grown. According to the draft policy, interventions mainly to transform subsistence agriculture to commercial in response to marketing opportunities were initiated in 2001 with the objective of increasing foreign exchange earnings. These interventions sought to achieve the following:

- Multiplication and distribution of planting materials to raise fruit hectarage by 4,0000 hectares;
- Streamlining standards for the export markets;
- Promotion of exports by way of production villages, collection centres and picking facilities;
- Rehabilitation of targeted irrigation schemes to increase exports and
- Promoting the formation of an apex horticultural development organisation.

The draft policy clearly had focus on increased exports of fruits and the growth of fruit exports shown in Table 2 cannot be ascribed to the policy since it was only drafted in 2006 and has not taken full effect. The interventions achieved the establishment of
mother gardens for mangoes, passion fruit, citrus and avocado pears as well as the training of nursery managers and production and distribution of 80,000 grafted plant materials. These developments are a basis upon which production could be increased leading to higher fruit exports. In addition, stakeholders were sensitised about export quality and standards; 6 collection centres with charcoal coolers were established in a number of districts. Further measures include trade promotion missions to France and Switzerland and the establishment of a tissue culture laboratory. All these can be noted as significant steps towards improving fruit production and exports. However, these developments could benefit from a coordinated policy for fruit production and export although it is also not clear how much more production and exports such a policy could achieve. It would address known constraints to the horticultural industry.

The draft horticulture policy envisages a coordinated and competitive, private sector led production of good quality produce and products with surplus for export. These would be produced both for food and income generation to ensure food self-sufficiency, improved nutrition and poverty eradication.

The department of Crop Production and Marketing developed strategies and guidelines for the selection of horticultural enterprises and the required research programme building on a FAO project carried out between 1989 and 1994. The strategy for popularisation of fruit production required fruit tree nurseries. The ministry together with NaCCRI established 2,600 m2 capacity nurseries. Moreover, there has been a wide acceptance and establishment of private nurseries country wide which have boosted fruit production and has established a basis for exports of fruits.

Research on and the development programme for fruit and vegetables at NaCCRI is ongoing where on-station research is conducted at various regions in the country. The development also involved training nursery operators and farmers in nursery and field establishment and management. As a result of these initiatives but especially the horticulture programme, there has been improvement in large scale fruit farming especially for mangoes and citrus fruits. This is a critical part of the strategy for expanding fruit production to satisfy the Ugandan market with surplus for export. The

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7 This is based on Okasai et. al. (2007)
8 The identified fruits were mango, avocado pears, passion fruit, pineapples, pawpaws, citrus fruits, macadamia nuts and guava.
ministry holds the view that quality can be improved if quantities increase stirring up competition in the market. However, not much has been done about vegetable research, development and production although Uganda produces a variety of vegetables including okra, cabbage, ginger, tomatoes, hot pepper and chillies.

While the Ministry of Agriculture does not have a policy to stimulate production and export of fruits, interventions so far have created awareness of the business opportunities arising from growing fruits and the health implications for consumption in the home.

2.1.5 Agricultural extension services and production technology

Extension services in Uganda are provided by the NAADS, an organization under the Ministry of Agriculture responsible for public agriculture extension delivery. NAADS aims at improved management of whatever enterprise farmers choose; enterprise choice is predicated upon research findings and information on possible enterprises that do well in particular areas in a participatory process that combines farmers’ perspectives of opportunity and the centre’s technical knowledge. Farmers make their choices on the basis of resources and other considerations with a view to maximizing profit from their selected enterprises. The market orientation emphasized in the PMA is thus made possible by NAADS at the production level to increase profitability of subsistence farmers.

NAADS avails technical knowledge to farmers through training and demonstrations, introduces materials evaluated in strategic locations and establishing mother gardens as well as develop local capacity for nursery operations – clean planting materials at reduced costs. These interventions in fruit production have been most successful in citrus (orange) production where in 2007, 6,000 metric tons of oranges were harvested for sale locally with some exports to Kenya. In 2008, production is estimated at 11,000 MT. Production can be expected increase leading to an increase in exports from the grounds developed by of NAADS interventions.

Vegetables
The development and production of vegetables appears to be a major challenge in Uganda. as vegetable production has not been adopted widely in the country. The

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9 The choices are between crops, including fruits and vegetables and livestock.
challenges appear to be high investment costs, labour intensity, the need for timing to supply the local markets at the best time, the need to water the gardens and the fact that vegetables are generally highly perishable. In addition, the absence of strong research and development of local varieties has not motivated local producers much.

Technology
Improved seed and high yielding varieties are central to production of both fruits and vegetables. Vegetable seeds are mainly imported while the private sector has come in to produces clean fruit planting materials. Citrus and mango varieties were imported from South Africa and Israel. Pineapple production technology is now very well established; it emphasises spacing, soil moisture management and disease management as key issues in local production of fruits. Other aspects of the technology are management practices relating to pests, nutrients and soil fertility management. Few farmers apply fertilizers opting instead for organic manures. Attention is still required in post harvest handling to reduce losses, improving packaging and quality. NAADS has made significant contributions to commercial production of fruits but has not done much for vegetables.

2.1.6 Trade Policy and the Marketing and Agro-Processing Strategy (MAPS)
Trade policy relates to regulation of imports and exports as well as stimulation of production. The Ministry of Tourism Trade and Industry (MTTI) is the Government’s lead organisation on trade policy through the departments of domestic and external trade. A national trade policy was approved in 2007 and a National Trade Sector Development Plan to guide the implementation of the national trade policy was developed. The plan covers a five-year period and implementation started in 2008. At present, trade policy has been dominated by negotiations focused on market access through multilateral, regional and bilateral agreements. MTTI is also responsible for regulating domestic trade and encouraging production to boost exports.

In relation to horticulture, the ministry’s department of trade disseminates information to the districts where it maintains trade representatives called District Commercial Officers (DCOs). MTTI was assigned responsibility for the MAPS, one of the areas under the PMA. Improved market access is a key condition for transforming the subsistence sector to commercial production which can be achieved through creating an enabling environment for the establishment of markets, through provision of infrastructure and removing trade barriers. MAPS defines priority areas in which the government can
facilitate trade and mitigate incidents of market failure in the process supporting export growth. The strategy also recognises the importance of regional and international markets whose expansion offers opportunities for Ugandan goods.

The national trade policy was approved in 2007 and its implementation started this year. It is too early to expect it to have visible benefits for fruits and vegetable production and trade. Since the policy places emphasis on domestic trade, it is anticipated that through the district commercial offices, the implementation of the national trade policy will transform production at the district level and increase production of tradable products including fruits. Generally, it is interesting to note that, although Uganda’s exports of agriculture have been declining, fruit and vegetable exports have increased over the last five years.

2.1.7 National Exports Strategy (NES)

The Uganda National Export Strategy (NES) (2008-2012) is an initiative of the Uganda Export Promotion Board (UEPB), a trade promotion organisation which operates under the MTTI. UEPB was established by an act of Parliament in 1996 with a mission to brand Uganda as a reliable world market supplier of quality export products. It has much broader responsibilities for Uganda’s export development key among which include export policy initiation and advocacy, market research and development, trade information generation and dissemination, export skills development and trade promotion services.\(^\text{10}\)

In the pursuit of export promotion, UEPB initiated the Uganda National Export Strategy and coordinated the activities of various stakeholders for the growth of exports. The strategy has a target to achieve export revenues of US$5 billion and to contribute more than 16% to GDP by 2012. It uses a value chain approach to understanding pertinent sector specific issues, problems and benefits along the supply chain. It seeks to address inherent supply-side constraints and opportunities; quality of the business operating environment; demand-side constraints and opportunities as well as development initiatives.

\(^{10}\) From Ministry of Tourism, Trade and Industry (2007).
The NES identifies priority sectors with export potential whose development is essential to the achievement of export targets. The fruit and vegetable sector is one of the twelve key sources of export growth. The strategy identifies and analyses cross-cutting strategic issues that militate against export growth. It analyses the current situation and suggests measures for mitigating the export inhibiting issues to generate the required growth are outlined together with the relevant players. Further, the strategy scopes current trends and performance of priority sectors and presents a SWOT Analysis as a way to identify issues to be addressed. It outlines a Strategy integrated management framework/matrix of the sector which matches (sub) sector objectives with the measures to be pursued as well as targets to be achieved and initiatives for accelerating export expansion. It also lists the lead and support institutions, milestones and the sources of resources required to achieve set targets. The fruit and vegetable sector’s importance is the more than one (1) million small rural farmers that the sector provides alternative sources of income to. The sector only achieves very modest export performance which in 2006 was US$5.0 million. Prospects for the sector exist in value addition through processing such as drying fruits, production and export of fruit juices and concentrates, fruit caning, fruit pulp processing, flour production for the bakery industry and production of vegetable purees and chutneys.

The NES target for the fruits and vegetable sector is to grow exports from the 2005 value of US$5.0 to US$15 million in five years while a dried fruits exports figure is targeted to grow from US$5.0 million to US$14 million. Other issues are to improve incomes levels of fruit and vegetable farmers by 50%, establishment of marketing agencies in Sudan, DRC, Kenya, Tanzania and Rwanda. A promotional programme for regional markets in COMESA and maintaining permanent trade points in the region are important initiatives which will be employed to deal with and achieve growth in regional markets. Designated areas will be developed as areas of production and sources of fruit and vegetable production for exports. This ties in well with another strategy for promoting growth and increasing exports – The Corporate Zonal Plan. In addition, the Strategy envisages an increased number of companies accessing value addition funds and those being certified to ISO 9000.

As can be expected in this element of the NES, the key players will be MTTI, MAAIF, NAADS, PMA Secretariat, PSFU, local governments among others. This work requires a
lot of collaborative efforts, with research institutions as well as policy institutions throwing in their weight. Banks, UIA, UMA, UEPA and external organisations such as UNIDO are important players contributing to the achievement of envisaged growth of fruits and vegetables.

2.1.8 The Plan for Zonal Agricultural Production, Processing and Marketing

The Plan for Zonal Agricultural Production, Processing and Marketing is another of the plans for addressing low household incomes through zoning the country for production and export trade of agriculture products and increasing the production, value and profitability of household agricultural production. It was developed in 2004 and emphasises a multi-sectoral approach and includes crops, fisheries and livestock sectors, related agro-processing and agribusiness enterprises and market access concerns. The plan identifies and maps out areas with the highest competitive and comparative advantage in production of exportable, high value agricultural products in terms of profitability and socio-economic returns.

Uganda is mapped into ten (10) zones mainly on agro-ecological, climatic differences, relief variation, socio-economic and cultural characteristics. The plan seeks to stimulate extraction of higher value derivatives and identification of active ingredients in medicinal and cosmetic plants as well as introduce measures to preserve crops, improve handling and expand agro-processing at various levels of the value chain. It targets farmers in agro-processing and agribusiness, supporting public and private systems and agencies, and policy makers. This plan fits in the PMA framework, emphasizes the NAADS approach, fits well with the new NARS system, and calls for establishing the remaining pillars of PMA to fully support the increasing of agricultural production and export in the respective zones.

For each zone, enterprises were selected on the basis of the value of the product on export market, availability and access to that market, agro-ecological suitability of the

\[11\] The discussion is based on the Republic of Uganda (2004)

\[12\] The PMA is being implemented through seven priority areas namely a) improving access to and quality of agricultural advisory services; b) promoting agricultural research and technology development; c) promoting agro-processing and improving access to markets; d) increasing access to and availability of rural finance; e) promoting agricultural skills and knowledge through formal and informal education; f) promoting the sustainable use and management of natural resources; and g) Improving supportive physical infrastructure. Since NAADS is handling production issues, the remaining pillars refer to those that are not the responsibility of NAADS.
enterprise to the respective zones, and existing or resident knowledge, existing production, processing and marketing infrastructure, existing support institutions, availability and system for supply of inputs, skills and knowledge. On fruits, Uganda’s fruits exports performance is noted against world demand especially for dried fruits (apple bananas, mangoes, papaya and pineapples). Added to this is the thrust for increased market access. The plan examines geographical markets available to Uganda, including AGOA, EU, COMESA, EAC as well as the so-called ‘soft markets’. It also examines selected individual product markets with a view to demonstrating useful criteria to guide product selection and to emphasize that this plan should target entry to clear growth markets.

The plan proposes interventions including strategies for the mapped zones and the suggested viable enterprises. The interventions cover strategies on technology, inputs, farmer organization and mobilization, agro-processing, input supply system, marketing and exporting on the agriculture side. Issues of quality of export products, industrial and agricultural skills, infrastructure, and technology inter alia, are strategised. The Strategy also envisages an increased number of companies accessing value addition funds and those being certified to ISO 9000.

Although the Zonal plan suggests viable enterprises for the respective zones to promote and encourage specialisation and has been implemented over the past four years, its effectiveness and impact on fruit and vegetable production and export is not apparent. It is a rather obscure document that does not appear to have achieved much. Its implementation requires numerous agencies and no one institution is responsible for all the aspect of the plan.

2.1.9 Producers’ Associations in Agricultural Production and Trade

There are sectoral associations formed by producers and other interested parties to promote and lobby for policy changes that cater for development of horticulture. The Horticulture Promotion Organisation Uganda (HPOU), Horticulture Exporters Association (Hortexa), the National Organic Agriculture Movement of Uganda (NOGAMU), the National Farmers’ Federation are important players to the growth of fruit and vegetable exports. Their interest in advancing fruit and vegetable exports makes them key players in the strategies to produce and trade fruits and vegetables.
**Horticulture Exporters’ Association (HORTEXA)**

HORTEXA promotes commercial production and export of high quality fruits, vegetables and spices and seeks to strengthen horticultural sector competitiveness. The organisation was formed by traders who found it important to vertically integrate their activities and thus stepped back into production. The reasons for this are obvious and it makes sense that the trader who knows the market requirements works together with the producer. The association also provides training and market information.

**Horticulture Promotion Organisation Uganda (HPOU)**

The HPOU is an umbrella body that brings together associations of organizations involved in horticulture production and trade. Its members are HORTEXA, NOGAMU, Association of Fresh Producers and Exporting Companies (AFPEC) and the Federation of Associations of Ugandan Exporters (FAUEX). It was formed in 2006 after realizing that these associations faced common challenges and that they needed the weight of numbers to confront their common problems. The objectives are mainly to push for industry expansion in production and export. HPOU has identified four key areas for intervention, viz. training, lobbying for policies that are supportive of horticulture production and export, development of and compliance with standards and their implementation and marketing. In addition, the HPOU is working on the development of national general accepted practices (NGAP) and marketing standards.

**National Organic Agricultural Movement of Uganda (NOGAMU)**

The National Organic Agricultural Movement of Uganda is a non governmental organisation established to unite producers, processors, marketers, trainers and other stakeholders with an interest in the promotion of organic farming. It seeks to increase incomes and improve livelihoods in Uganda through adoption of organic agriculture. NOGAMU’s objectives are to:

- Build capacity in organic research, training, education and extension;
- Promote local and international marketing of organic products from Uganda;
- Increase the application of organic standards and certified organic production; and

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13 NOGAMU has three categories of members: individual, corporate 1 and corporate 2. Membership is open to individuals, NGOs, cooperative societies and companies involved in or that support organic production, processing, marketing and export. It is secured by paying membership fees and is renewable annually.
• Increase awareness and attract support for organic agriculture.
These objectives place NOGAMU at the centre of production and trade of organic fruits and vegetables among the range of products it grows.

It is estimated that member export companies have increased from 3 to 36 (2001-2008) and the number of farmers certified organic grew from 15,000 to 86,000, while those in ‘organic in conversion’ is 120,000 farmers. The number of certified organic farmers is expected to rise above 200,000 by 2009. Farmers tend to work in farmer groups that range from 20-30 members per group. The importance and prospects of NOGAMU’s contribution to socio-economic improvements are evidenced by the number of farmers wishing to join the movement.

Organic farming has good prospects for poverty reduction because many small holder producers do not use synthetic inputs and therefore with appropriate guidance can easily step up to organic production. The costs of inspection are paid for by the exporter who has the interests of increasing premium exports. There is evidence of improved livelihoods among the farmers producing and selling organic products. The evidence of this is provided by the type of houses they build, some invest in opening up more land to increase production.

[It is important to note that the crops grown by the organic movement are not restricted to fruits although they are an integral part of organic products produced in Uganda sold in exports markets in Europe. Some of the crops produced organically apart from fruits are cotton, coffee, cocoa, spices and chillies as well as vanilla. Organically produced fruits are avocados, bananas, jackfruits mangoes, pawpaws, passion fruit and pineapples. Organic products fetch a premium on the market equivalent to an average 25 per cent above market prices for similar but ordinary products. However, there is no policy on organic production although a draft has been prepared and is going through the consultation process of policy formulation. It is expected to be adopted in October after a stakeholder conference planned for August.

2.1.10 Trade Policy and Socio-economic Progress
This section outlines possible impacts on production of and trade in fruit and vegetables on household income and poverty levels for those engaged in the business. The expectation is that the impact is positive and therefore an improvement on household income. Such improvements then generate positive development on the poverty
reduction front. The way it works is that an improvement in income leads to an improvement in welfare and thus reduces poverty, as households become better.

Trade policy has an influence on welfare; it affects production, exports and imports. Changes in trade policy can have strong implications on socio-economic status of the population. Changes in the domestic tariff structure reduces anti-export bias and can promote exports, hence growth, and in turn reduce poverty. Conversely, changes in domestic tariff structure that increase anti-export bias would have the opposite effect. Changes in the domestic tariff structure can also affect poverty by changing the prices paid and received by the poor, and the returns to the factors of production that the poor have to offer. The national policies and strategies outlined above highlight the GOU’s attempts especially at raising production and increase household incomes in the subsistence section of the population. Because of the structure of the economy, these policies and strategies relate to activities in agriculture. It is this sector that can touch and significantly alter the livelihoods of the majority of the population especially if their surplus produce meets international quality standards and can be marketed well.

It was shown earlier that the PEAP is the main policy guiding Uganda’s activities towards reducing poverty. Its Pillar 2 dealing with production, competitiveness and incomes is relevant to trade policy and poverty impact. The PMA seeks to transform production in the subsistence sector and increase incomes to the subsistence sector. If well executed, this strategy can reduce poverty in Uganda. A study by Achterbosch et. al. (2007) on poverty alleviation in horticulture using the cases of Uganda and Vietnam sought to establish where emphasis in agriculture should be placed for purposes of alleviating poverty among the poor. It analysed the contribution of selected horticultural commodity supply chains to poverty alleviation and reduction in Uganda using six horticultural commodities: hot pepper, onions, pineapples, passion fruit, vanilla and cut flowers. The concluded that trade offers opportunities for exports earnings. However, livelihood impacts of horticulture are best assessed through an analysis of the specific marketing channels for livelihood development according to the amount of value added created in the supply chain, and the scale on which the fruit and vegetables and flowers are cultivated. This will highlight each product supply chain’s capacity for the creation of opportunities for employment and for income generation. Further, they conclude that

14 The Ugandan case focused on fruits.
“Within the export sector in Uganda, the overall economic impact of small-scale fruit and vegetable (in terms of value added) is five times as big as large-scale rose production, but growth rates are much steeper for the latter.”

More generally, Achterbosch et. al. hold the view that “both value creation and the generation of opportunities for (self-) employment in domestic marketing channels are substantial, and possibly outweigh the economic impact of overseas export marketing. The economic impact of export supply compared to home marketing for Uganda shows that the domestic market generates 60% of value added, while exports generate 40%. Total employment creation for six garden commodities in Uganda is indicated at 37 thousand full time units of employment, excluding hired labour on the farm. This study also found that the incidence of poverty in the Ugandan sample of horticultural growers and workers is far below national averages. Clearly, this shows a large potential impact for fruits and vegetables production and trade in Uganda for socio-economic improvement of the poor sections of society.

Other benefits can be viewed from changes in the tariff structure through the adoption of the Common External Tariff (CET) of the East African Economic Community (EAC) as well as those changes from lowering of the CET, as envisioned by the EAC. Such changes only capture short term welfare changes that arise from price changes while over the longer-term, production will respond to changes in prices and will affect household incomes. Short-term effects require intervention measures to alleviate potential adjustment costs, including through review of the CET. According to the World Bank (2006), the increase in Uganda’s average tariff on household consumption baskets by more than the increase in protection on production in particular the increase in tariffs on food (which constitutes a large share of the expenditures of the poor) were anti-poor and increased the negative impact of the adoption of the CET by the EAC. Indications are that the anti-poor effect is more severe in the urban areas than the rural areas, because the rural poor is more likely to consume own produced food.

Fruit and vegetable production is not protected by the trade policy but by other factors related to their production and sale i.e. there is no anti-export bias in fruit and vegetable production. Imported fruits and vegetables are very expensive, a fact that gives their production in Uganda some natural protection. However, some fruits and vegetables are
imported but these are not for consumption by the poor. The poor can benefit from increased production and trade of the same both in and outside Uganda.

Sustained higher economic growth is essential for poverty reduction and strong economic growth led to a reduction in the incidence of poverty from 56% in 1992/93 to 39% in 2002/3 and further to 31% in 2005/2006. Marked improvements were experienced by the rural population where there was strong growth in average consumption levels. About 50% of households received their earnings from subsistence farming a point which illustrates that a large part of the population has no other source of income than farming and income improvements can only derive from farming improvements. As such, the activity should be made more profitable in order to increase household incomes and in the process lead to poverty reduction before eradication. Growing fruits and vegetables is not a main activity but supplementary to food crop production and a reorientation to take it up along commercial lines would improve incomes even more.

Improvements in agricultural production are a function of a number of factors major among which is investment in the sector. The data on investment especially in agriculture is rather scanty. Table 3 below shows government and donor assisted development expenditure and growth over the period for which data is available.

<table>
<thead>
<tr>
<th>Table 3: Development expenditure on Agriculture ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>03/04</strong></td>
</tr>
<tr>
<td>Government Agriculture Development Expenditure</td>
</tr>
<tr>
<td>Govt expenditure growth %</td>
</tr>
<tr>
<td>Expenditure including donor funds</td>
</tr>
<tr>
<td>Share in Annual Development Budget %</td>
</tr>
<tr>
<td>Devt Budget growth %</td>
</tr>
</tbody>
</table>

**Source:** MFPED (2008)
**Notes:** Development expenditure figures have been derived from UG shillings at official mid rate of exchange. This influences the calculated rate of growth of expenditure.

It is recognised that there are inadequate provisions to implement all the desired interventions in agriculture. The resource limitations have also undermined the implementation of various proposed interventions in the sector. There are no private sector investment figures. However, the Uganda Investment Authority keeps a record of licensed projects.
2.2. Supply- and Demand-Side Constraints Undermining the Contribution of the Sector to the Growth and Development Prospect of Uganda

The growth of horticulture trade (exports) is hampered by a myriad of supply related constraints that the economy faces. To start off with, production levels are quite low for a variety of reasons. We try to go through some of the main constraints that impede the growth of trade in horticulture products and thus limit the potential impact of this on socio-economic progress. A number of the studies and papers referred to above have gone in some way to highlight the perceived constraints and challenges to export expansion. Here the focus on those issues that directly affect horticulture exports in particular but may not be able to isolate them from the broader issues that affect general export growth especially within the agricultural sector.

There are a number of constraining factors to the growth and development of the fruit and vegetable subsector in Uganda. While these can be attributed to both supply- and demand- side factors, it has to be recognised that the supply-side factors weigh heavier. In fact, one could easily consider supply-side constraints to be the exclusive main constraints to export expansion. IDEA Project (2001) made this point...

...Contrary to popular belief, growth of horticultural exports is constrained by production rather than market factors. There are no serious market constraints facing these horticultural crops, except the need for continuity and quality of product.

From another perspective, it is possible to categorise the constraints to export expansion into generic as against sector specific. The economy-wide factors/constraints are as important as the sector specific ones. Any attempt to address these with a view to increasing exports cannot be successful if the economy-wide constraints are ignored. The economy-wide constraints are on the Ugandan side or are in-border factors. We shall consider the production related constraints on the section on production techniques and technology issues.

2.2.1 Supply side constraints

2.2.1.1 Structure of Production

A primary fact about the constraints stems from the dominance of production by small holder producers. This comes with a whole host of associated issues that do not encourage growth and development. Small holder farmers are more focused on subsistence production and there is low (if at all) or no commercialization in the sector.
Fragmented landholding puts pressure on adequate family food production needs. High input costs make structured production difficult and leaves the sector operating along traditional subsistence lines which do not guarantee quality or volumes. There are no production contracts and so whoever is selling or buying cannot offer pre-determined quantities but are left to trade opportunistically. The sector is characterized by an overall lack of business skills and weak entrepreneurs unable to invest in value addition in the sector. It is sensitive to costs which makes investment difficult and costs more prohibitive.

A combination of the above challenges with low volume production and cost of production undermine fruit and vegetable exports growth. The sector lacks skilled labour and low capital which make the use of specialized equipment impossible, inadequate internal control on quality standards, high fuel prices leading to higher transportation costs. Uganda is a landlocked country.

**2.2.1.2 Technical skills/Skilled Labour**

Associated with the constraints related to small holder dominance in fruit and vegetable production in Uganda are low technical skill levels to serve the sector in general and small holder fruit and vegetable subsector in particular. Labour is a key competitiveness factor at the firm level. Its productivity determines the competitiveness of the products it produces. Competitiveness is improved by improvements in productivity, efficiency and innovation throughout the value chain. Low labour productivity of Ugandan workers which trails far behind that of regional and international competitors at similar levels of development is a weak platform for launching export expansion even of agriculture produce (WTO, 2006). In the horticulture sector, while the daily cost of labour is highly competitive, labour efficiency is low. Productivity in the fruit and vegetable subsector is even lower largely because labour is employed here on a part-time basis. This applies at all levels from owners to managers, to supervisors and daily paid labour. Owners and workers both tend to be part timers in the sense that they do not devote all their day at work in fruit or vegetable production. They spend much of their time on crops that make up their main staple. The low productivity implies higher costs of labour which directly affect competitiveness. This hinders both expansion of production and the penetration into and sustained presence in export markets.
There is a need for training for skills upgrading but most investors do not understand the benefits and techniques of a permanent training policy for staff they employ. The general perspective on training is that it increases costs occasioned by workers’ absence from work while attending training. This view ignores the potential benefits of skills and the need to upgrade them to remain relevant and increase productivity. Indeed many view time spent on training as wasted production time. Until skills are adequately appreciated, production efficiency and costs will continue to be major impediments to the development of the sector.

In the related area of horticultural research and technology transfer, there is minimal public sector capacity at present. For small holder producers in the fruit and vegetable sector, this is an area where individual investment is difficult to carry and would rather be done by government with the sector simply applying the benefits to their own operations.

The skills support to this sector can be obtained from extension services. In this regard, the PMA, MAPS and NAADS are of critical importance. PMA aims to turn small holder farming into commercial production with further objectives to value add through processing of agriculture produce.

**2.2.1.3 Scale of Operations**

It was pointed out earlier that there are less than 3,000 small-scale fruits and vegetables growers targeting the export market. The size of the holdings in the fruit and vegetable subsector are small. The average size of holdings is 0.5 hectares. This imposes disadvantages to growth and development of the sector. It is inherently atomistic, fragmented and inefficient and therefore not cost effective. There is a loss of advantages of scale economies. The IDEA project established that for horticultural export products, the cost and freight must average USD3.00 per kilogramme to yield positive returns. If the product value is less than this, the real returns to growers and/or exporters will be negative. Because these are produced under rain-fed conditions with very limited

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15 University graduates come out with rather limited practical exposure underlining the weakness of current degree programmes. In any case, continuous skills upgrading is the responsibility of the employer who determines conditions for release.

16 Uganda can draw lessons from the experience of Rwanda. The Government of Rwanda introduced an actionable subsidy to alleviate the burden of high transport cost to producers and exporters. The Rwandan government shares 70 cents per kg of flower exported.
irrigation, there are limitations imposed by seasonality of production. As a result, the supply of fruits and vegetables cannot be consistent. Grown and supplied by numerous individual farmers under different conditions the quality tends to vary and while traders can collect and assemble volumes for trade, there is always a danger that the produce is non-homogenous and quality is not guaranteed. Making the volumes that make export trade viable is an ever present challenge. Addressing these challenges requires infrastructure that would facilitate improvement. This ranges from the introduction of irrigated systems for consistent supply and establishment of cold-storage facilities accessible for use by producers in an area.

The fruit and vegetables are sold fresh; the process of collection takes time and assurance of quality and threats of deterioration provide a major challenge for the sector’s development. Fruit and vegetables tend to be high volume and low value products targeted at European markets, where there is demand. This has implications for issues of transportation which escalates costs and reduces profitability. Maintaining product quality calls for efficient cold storage between harvest and delivery on the market for consumers.

2.2.1.4 Production and quality of goods

Uganda exports agricultural products which are mainly high volume and low value and largely undifferentiated. Production is basically of commodities with minimal processing and value addition. Agricultural production is by subsistence farmers on small plots with very low level mechanisation and use of improved technology. Productivity is low and product quality variable and very often it is difficult to raise meaningful volumes and quantities for export. World commodity prices are known to be very volatile and the experience of Uganda with coffee illustrates this point best. Fish processing was achieved through government policy banning the export of unprocessed fish and bans by the EU.

The target markets in Europe have quality, hygiene and traceability requirements for products entering these markets. Enforcement of the quality standards and the hygiene and traceability requirements by the buyers limit opportunities for smallholder production of fresh fruits and vegetables. In fact they impose threats to the survival of this sector in Uganda. The conditions and requirements can only be met by modern
farms adequately invested in and equipped with year-round irrigation, hygienic pack houses and cold chains.

The prospects for Ugandan small holder producers of fruits and vegetables will improve if they sought to expand into or establish markets in the region at the same time working to upgrade their production systems. It is essential to accept that various categories of producers can only target certain markets and maximize their profits by being efficient in the selected markets. In this regard, certain categories of producers can thrive on supplying the domestic markets, while others can aim at neighbouring countries. Yet others will be able to target regional markets further afield. Only commercial farms with adequate production systems as well as cold store transport facilities to keep produce fresh would venture into producing fresh vegetables to standards approved by major European supermarkets.

2.2.1.5 Access to and Cost of Finance

Affordable finance is an important input into economic activities underlining the competitive performance of goods. Investors and producers need support through access to affordable finance. However, in Uganda the cost of finance is high and access to credit very low. There is an over-reliance on bank loans and overdraft facilities which are suited to short term needs. However, there is a peculiar problem of finance and credit provision to agriculture and agribusiness investors associated with the intrinsic risks involved. The problem is even bigger when banks and financial institutions consider financing small holder agriculture which operates more informally. The security of lending is even more doubtful and the sector involved in producing fruits and vegetables is not catered for in Ugandan financial markets. There are a number of micro-finance institutions but their reach and capacity is still limited. In any case, their charges are in many cases higher than those charged by banks. The sector’s needs for finance cannot be adequately emphasized. In some cases, provision of shared facilities would be more cost effective. Other arrangements such as contract farming would increase and improve input supply to this section of the agriculture sector with associated benefits of estimable supply and improved quality. Given the number that are employed by the sector, all possible approaches need to be considered to ensure that it plays an important part in realizing the government objectives of poverty eradication and that Uganda moves towards meeting the millennium development goals.
There is also the element of the cost of finance which undermines affordability. It has been observed that sometimes various financial instruments have been made available to the horticulture sub-sector (APEX funds, ECGS, IDB etc), at competitive interest rates of 12-15%. However, the capacity of entrepreneurs to access these funds was viewed as still weak. This is because private consulting firms have little experience in the sector and therefore do not help the process of accessing such funds. A lack of understanding of the sector from the consultants as well as from banks makes lending to the fruit and vegetable sector of agriculture unimaginable. There is a need to develop appropriate lending/financing schemes for fruit and vegetable production. Obtaining loans by the sector has largely depended on foreign consultants or watertight guarantees. This problem is familiar to all banks and projects working in agriculture. Feasibility studies, business planning and financial management are all areas which will continue to need intensive technical assistance for years to come.

They cost of finance cascades into other critical inputs in the production process with the effect that there is a multiplication through high costs of power and telecommunications. The MTCS business environment agenda identified among other things the need to improve access to capital, reducing the risks of lending, promoting savings and expanding financial services for MSMEs to give hope to the disadvantaged. These issues relate to the need for efficient and effective financial services and capital market.

2.2.1.6 Infrastructure

Infrastructure in Uganda is a major impediment to growth and development of the fruit and vegetable sector. This covers transport infrastructure (road, rail and air) and production supportive infrastructure, mainly power, telecommunications and water. Transport infrastructure must be supportive of trade in general and export development in particular. The process must start with sourcing and gathering produce from the various production areas in Uganda. The district feeder roads and the state of national trunk roads do not facilitate swift transportation of produce to domestic markets in urban areas or out of Uganda. Uganda is a landlocked country which places the flow of goods into and out of Uganda’s control and subject to the control of countries through which its trade routes pass. The efficient flow of goods from a landlocked country
requires good roads and railways infrastructure and efficient port handling facilities. Where these are absent, there is an escalation of costs occasioned by the distance to far away ports. Fruits and vegetables are bulky, low value high volume goods with high transport cost implications. Others costs are added by trade facilitation charges in neighbouring countries as goods transit these territories. Delays are often a major cost on both imports and exports making them more expensive and thus less competitive. Mombasa Port handles 95% of Uganda’s external trade traffic and problems of congestion increase costs. The poor performance of railway transport necessitates intensive use of higher cost road services.

For fresh fruit and vegetable exports to reach markets in a fresh state, there is a need to improve handling along the way starting at the farm. Transit time must be short while the quality and fresh state need to be preserved along the way. Ugandan traders have had to resort to air freighting produce to European markets. Air freight capacity has increased since 2001, due to impressive investment by the private sector, facilitated by the GOU. However, the air freight costs added to that of inefficient production eats away the profitability of the business. The cost implications restrict horticulture produce trade/export to very high value products that can support the cost of airfreight. Current freight rates which stand at US$2.50/kg for freight to Europe undermine competitiveness.

Over the last two or so years (since 2006), Uganda has experienced shortages and unreliable supply of electricity due to limited generation capacity. The effect of this shortage is increased dependence on more expensive thermal power to supplement existing hydro electricity. Individual companies have had to invest in diesel generators adding costs that threaten viability and competitiveness. Telecommunications infrastructure has been provided by two fixed line operators and three mobile telephone operators. However, the opening up or expiry of the protection in the sector has seen entry of other service providers with the opportunity for further reduction of costs.

High cost structure caused by poorly developed infrastructure especially roads, railway and airways affect the whole supply chain for fruit and vegetables. This calls for investment in good roads, competitively-priced power and an efficient airport as these are all crucial factors affecting the level of private sector investment in horticulture.
Private sector response would be expected in investment in commercial farms, irrigation systems, pack houses, refrigerated stores, pre-packing lines, packaging plants and other related facilities. Rural pack houses, cold stores, processing plants and vehicles are all necessary but are not suitable investments for the public sector. Most viable export companies now choose to buy their own trucks as a more reliable and cost-effective option than using transport firms.

However, most of these advantages are related to economies of scale or past experience, and are not permanent. Uganda, on the other hand, has important natural resource, climatic and geographical advantages which could lead to permanent competitive advantages for selected products.

2.2.1.7 Low Investment
Growth and development in any sector of an economy requires substantial investment which must be exploited to the full. Similar growth in the fruit and vegetable subsector would require private sector investments in modern production units; private and public investment in training and research; and public sector investment in facilitating services at the airport, roads etc.

Although GOU has been responsive to industry lobbying, there is still room to improve taxation and investment incentives in this sector. Government can do much to encourage private sector investment, through public support and promotion of horticultural investment, but should avoid direct intervention in the supply chain.

2.2.1.8 Poor codes of practice and their enforcement
Opportunistic trade between small holder farmers, traders and exporters bodes ill for systematic development of organised trade. There are unethical practices related to measurement and weights which sometimes affect the quality of product. People violate codes of practice where they exist but generally the absence of standards signifying benchmarks complicates performance of horticulture production and trade. Each individual producer in his/her own plot/garden will handle the whole process differently. Practices are non-standardised as a result. The lack of assurance of quality by producers has continuously led them to accept very poor prices or non-payment for delivered products.
2.2.1.9 Poor post-harvest handling practices (sorting, packing and loading)
Robinah Sonko, et. al. (2005) highlight poor post handling practices including sorting and packaging which are not done in a proper manner among weaknesses in horticulture in Uganda. The effect of these practices is high incidence of post harvest losses, especially for the perishable commodities. The poor post handling practices also affect the final quality of product delivered to the markets and influences acceptance and price offered.

2.2.1.10 Absence of adequate research to support
There is inherent weakness and imperfect institutions in Uganda that affect the generation of new information and dissemination of technical bulletins or handouts for reference by farmers on general aspects of horticultural production including research. NARO is an important organisation for research to the Ugandan economy. However, it only focuses a small amount of its research on horticulture. This leaves farmers without much needed research support which is critical for productivity, quality and acceptability of their products. Progress in horticulture production requires strong research capacity which Government alone maybe best positioned to deliver.

2.2.1.11 Real Exchange Rate and Money supply
Uganda has performed well in some important areas; it achieved macroeconomic stability, with single digits inflation since the mid-1990s. High aid inflows give rise to concerns about the emergence of “Dutch Disease”. The World Bank (2007) found that aid inflows increase money supply and real exchange rate appreciation. The increase in money supply requires mopping up through the issuance of treasury bills. The study also found that aid inflows have led to increased investment. An overvalued exchange rate discourages exports since returns accruing to producers and exporters in Uganda in local currency are reduced. The Uganda shilling has appreciated substantially over the last three or so years thus reducing the amount of domestic currency earned from exports. This calls for an appropriate balance between macroeconomic concerns and incentives for producers of fruits and vegetables among others involved in export production.

2.2.1.12 Sanitary, Phyto-sanitary (SPS) and Other Standards
Uganda faces challenges in compliance with SPS requirements and product standards for its products destined to developed markets especially Europe. Both fruits and vegetables
are delicate in that they are exported fresh. There are issues of concerns related to policies and strategies to ensure that fruits and vegetables comply with SPS requirements. This challenge is further exacerbated by the fact that a large part of these products are produced by small holder and subsistence farmers whose understanding of the issues has to be raised to ensure continued acceptability of the products in international markets.

There has been modest success in fostering the development of sustainable SPS/quality management capacities and product quality standards. Rejection of products has so far been low and negligible.

2.2.1.13 **Trade Policy and Export Development Institutions**

Export development in Uganda is mostly concerned with addressing supply side constraints while the Uganda Export Promotion Board (UEPB) the main export development institution is focused on market entry services. This is an inadequacy that leaves supply-side constraints unaddressed. There are no clear private sector development (PSD) strategies or development of links between producers (farmers) except where associations have stepped in. Uganda lacks an effective high-level institutional framework devoted to PSD. There is also no overall GOU PSD strategy although there have been overlapping initiatives aimed towards supporting PSD, most notably the MTCS and the strategic export program (SEP).

2.2.2 **Demand side constraints**

The demand side constraints to the growth and development of the fruit and vegetable sector in Uganda have to do with the availability of markets, access to the said markets and associated hindrances to exploit both. It can be confirmed that Uganda enjoys unimpeded access to markets of fruits and vegetables both in the region as well as overseas. The largest confirmed markets for fruit and vegetables from Uganda are in Europe where demand is very high. There is space for more suppliers. However, as has been highlighted in the previous section covering the supply side constraints, it is the costs of accessing the markets that impose serious limitations; the cost of transport and maintaining the produce in a fresh accepted state. We outline the demand-side constraints below.
2.2.2.1 Type of target market
The small scale producers’ selling to price-driven fringe importers, usually located in the wholesale markets of UK and Holland face constraints as this is a shrinking business. The wholesale markets are gradually losing market share to supermarket chains, which operate procurement contracts with a small group of approved importers.

2.2.2.2 Quality, safety, health and hygiene standards
The major issues from the demand side however, involve the quality, health and hygiene standards demanded of products entering the European and such markets or those agreed internationally such as in the World Trade Organization. Statutory health standards for horticultural products exist in all markets. In addition, there are non-statutory quality standards determined by the buyers. Such non statutory standards are often higher than the minimum EU standards. Exact market specifications for each product are usually made available by reputable importers.

The problem for fruit and vegetables growth and development is not that standards exist but more that they are not well understood by growers and exporters. This highlights a problem of the handling and dissemination of market information and determining appropriate responses by the key market players on the domestic side of the market equation. The IDEA Project assessment is that there have only been isolated cases of Ugandan produce being tested and found to be sub-standard. The way this factor affects development is that growers and traders develop a view that breaking into markets with stringent health, safety and quality standards is difficult. As such they then do not target the market and commit themselves to producing for the domestic market. In a way there is no commitment to raise and improve quality or adhere to standards demanded by the market. However, if quantities increase significantly, major improvements in chemical application techniques, water quality and packhouse hygiene will be needed.

2.3. Production Techniques and Transportation Systems including Storage Facilities and their Impact on Horticultural Exports
Agriculture contributes about 45% of total GDP and has a dominant share in Uganda’s export earnings. The sector is dominated by food crop production, contributing approximately 50 percent of the agricultural GDP in 2002/03, while cash crops provided
a further 17%, the livestock sub-sector 16%, fisheries 12% and forestry 4%. The sector provides 80% of employment to the rural population.

Current agricultural production is predominantly carried out by subsistence farmers in very traditional methods and is mainly rain-fed. About 4.5 million small-scale households, 80% of whom own an average landholding of less than 2 hectares are the main agricultural producers. These households scattered small-scale subsistence farmers engage in non market-oriented production and predominantly use rudimentary technologies and sometimes environmentally unfriendly practices. The products are often of low volume; poor quality and are expensive to assemble for sustained market supply. This is a big disadvantage in ensuring sustained exploitation of regional and international markets all-year-round. The main focus of their production is household food needs. The production of fruits and vegetables by the section is a typical side activity receiving low priority. Inadequate organisation of the farmers exacerbates the problem. As a result they are unable to efficiently access inputs and market their produce collectively, thereby incurring high production and transaction costs, adversely affecting profitability.

Uganda is well endowed with water resources - both surface and underground in the form of lakes, rivers, swamps, streams and wetlands, which can be tapped for horticulture production. Production is therefore highly seasonal and is characterised by shortfalls especially during dry spells resulting from rainwater runoff and high evaporation rates. Prices of fruits and vegetables in such times fluctuate but often rising during times of shortage with no producers to take advantage even of the local market. This curtails sustained production and thus fails to meet regional and international demands.

The country’s surface area of about 241,039 sq km has 15% open water, 3% permanent wetlands and 9.4% seasonal wetlands. Of the 35,000-hectare irrigable land, only 2,500 hectares is under formal irrigation, which has been designed and implemented. This formal irrigation represents only 0.6% of the total potential irrigable (not designed and planned). There is need for Government intervention to provide physical infrastructure
for irrigation for community use. This infrastructure would include but not limited to, the following:

- Off stream reservoirs diversions
- River diversion
- Dams and valley tanks
- Distribution canals and pipelines

Government should intervene because the Uganda subsistence farming community are neither able to access nor are they able to afford irrigation facilities, and yet they need to advance to commercial agricultural production. The Government can lay the main infrastructure and the farmers meet the cost of extension to their respective farms.

2.3.1 Inputs

There is a general limited use of purchased inputs in Ugandan agriculture. As a consequence, soil productivity and yields have been declining mainly due to decrease in fertility and soil erosion but in some cases it has been due to lack of adequate rainfall or poor water management practices. Annual losses are estimated at between 1.4 to 12% of GDP due to environmental degradation which is brought about by a gradual decline in the productivity of land with subsequent reduction in farm outputs. These declines also affect smallholder and subsistence horticulture production.

2.3.2 Producer Characteristics

Agricultural production is characterised by many scattered small-scale farmers that lack skills in quality control. To a very large extent, the picture in the fruit and vegetable production mirrors this arrangement in the rest of Ugandan agriculture. Support for farmers to get organised into groups for collective and effective production and marketing of their produce and for improved access to services ensures that sufficient volumes of farm produce are supplied. Quality control of farm produce is also enhanced if farmers are organised for both production and marketing. Fruit and vegetable producers are however being mobilised by the Horticulture Exporters Association.

A number of concepts and production arrangements are being explored in a bid to increase production especially with the objective to increase exports. Examples are block farming, out-growers’ schemes around a nucleus farm or processing facilities and export
production villages which are vital for production of quality and sustainable quantities of agricultural products for export. They have advantages of increasing and improving access to and provision of services (market information, inputs, extension). Other advantages are farmer empowerment, use of tested seed, programmed farm activities and marketing. An example is the SULMA Foods, a company owned by HORTEXA which is involved in organic fruit production. Below is an outline of the basic concept provided by Wiegratz et al (2007):

[SULMA Foods Limited (SF) is involved in the production and trade of fresh fruits and vegetables (FV). Main products are: pineapple, hot pepper, passion fruits, avocados, and apple banana. SF was established in 2001 and started working with farmers in 2003. It has 20 permanent employees. About 80% of the sales are made in the export market, 20% in the local market. Foreign buyers are wholesalers in Germany and Oman, a processor in Dubai who makes juice for airlines and hotels in Dubai, and a small shop in Oman. On the local market, SF sells to (a) UC HUMI supermarket since the latter started operating in Uganda and (b) more recently to the NOGAMU organic produce shop. …

The SF supply system is structured as follows: 10% of the produce comes from the firm's own farm in Luweero and 90% from out-growers who were organized by SF. The SF farm is also the field base of the company with packaging facilities. SF works with: (i) two groups in Luweero district in organic pineapple production (with about 30 members in each group), and (ii) with one group in Mpigi district (25 members) in conventional production of hot pepper, avocado and passion fruits. Overall, SF sources from almost 100 farmers; the company has constant relational business links with all of them. SF purchases about 150 tonnes FV produce p.a. (2006) from all three groups together. The trend of sourcing from the SHFs is 'strongly up' for the last two years…..

SULMA Foods set up a direct link with the farmers to ensure the goal to produce according to standards for organic pineapple production and achieve consistent supply, of the products it exports. These objectives can be fulfilled through direct links and contract farming arrangements. SF has received the organic certification and works towards EurepGAP certification - to achieve that, it needed to set up organized growing with organized farmers group.

Public/private sector partnerships allow for establishment of out-grower schemes around nucleus production entities of agricultural products. In addition, they allow for effective implementation of contract farming arrangements or business linkages. These developments reinforce farmer input/product market access and investment capital inflows. Examples of out-growers’ schemes that are operational include Kibimba Rice Scheme, Germany Herbal Project, Kaweer Coffee Factory plantation, sugarcane plantations, tea plantations and Masindi Port (sunflower). The honey processing plant by Bee Natural Products (apiculture) in West Nile, Afrokai (sorghum, maize and beans), EA Fish Farming Limited (fish) and Bidco (palm oil) are cases where production is promoted targeting available processing facilities, while cotton production is by block farming. For fruit and vegetable production, the Sulma Foods case is the most established. As this case
demonstrates, it is possible to bring small holder farmers into an arrangement where they can exploit their potential under supervised and guided arrangements.

The challenge is to motivate and organize the small scale and semi-commercial farmers into sustainable market-led production entities with effective and binding contractual linkages to the agro-processing outlets and capacities through various farmer groupings or associations as planned under the zoning programme.

Another model or technology being adopted in general agriculture which has specific impact on fruit production is organic farming. Given the limited use of synthetic inputs, many producers consider themselves as organic farmers by default. Such farmers are already producing and selling fruits on the ordinary market and are seeking to transfer to the more lucrative organic market where premiums of up to 25% are obtainable for certified organic products. In order for them to earn the premium, products have to be certified organic farmers by an accredited body.

Farmers wishing to produce for the organic market must undergo training before their activities relating to production and handling of products are inspected. Upon inspection, the certifier writes a report recommending that the producer be accepted as fulfilling the requirements for organic production or suggesting improvements that would have to be done before they reach the status or qualify to sell products. After qualifying, then a producer can sell organic products. Typically farmers devote 1 to 3 acres of their land to fruit production. Organic production has the advantages of intercropping. The identification of farmers to be considered for organic production is done by exporters who also determine which products they seek for a known market. The exporters pay the certification expenses. The certificate is renewable on an annual basis and requires that at each renewal the producers be in compliance of organic production requirements.

2.3.3 Draught Power
Ugandan agriculture heavily relies on the hand hoe and muscle power as the main method of tilling the land. There is no/limited use of animal draught power or

17 There is only one local certifier recognised internationally – UgoCert which was established in 2004 and has been working with international certifying organisations in Germany, Switzerland and the UK. They are now accredited to the International Federation of Agriculture Organic Movements and to the EU Regulations.
mechanical traction force. As a result, the production unit is limited to the more manageable garden/plot and not so much of anything resembling a farm. This method limits the size of land under cultivation, leads to inefficiency and low production levels at the same time tying up a lot of labour. Mechanisation and animal traction strategies seek to address this constraint in order to improve production scales, efficiency, and timeliness as well as drudgery reduction.

2.3.4 Extension and Advisory Services
Extension service delivery in Uganda was decentralized to the district. NAADS organises farmers and provides extension services to develop farming skills to associations. It also promotes technology development and multiplication; quality control and improved marketing of agricultural products. Efficient delivery of advisory services is supported through strengthening the capacity of the private sector to provide the services demanded by farmers. The main concern for NAADS is enterprise selection and fruits rank high among alternative enterprises. NAADS provides planting materials based on technical knowledge of the environment including soils. Another approach is the farmer-to-farmer system also referred to as Community Extension Worker approach (CEW) with a multiplier effect. However, there are cases where shortage of technical personnel to offer the extension services is a major limiting factor and those officers available are poorly facilitated causing a very limited impact of extension services on production of horticultural crops.

Agricultural zoning will provide an input into the NAADS programme as an information source to guide the farmer-driven enterprise selection approach to enterprise development and promotion. It is therefore recommended that the NAADS programme adopt the selected enterprises from each zone as the range of enterprises from which the farmers select and prioritise enterprises for promotion. The programme should therefore put emphasis on the selected enterprises in the zones, in the provision of advisory services.

2.3.5 Transportation Systems
Trade in fruits and vegetables is mainly done in their fresh state. They are highly perishable with very limited post harvest life. Transporting these from the farm and to market to give maximum life requires specialised facilities. This chain of linked handling is called a cold
chain and the maintenance of suitable temperatures that give an extended life throughout the stages is critical in the cold chain. In order for them to reach the market fresh and an extended shelf life, it is imperative that the time between harvest and reaching the market is short. It requires special handling in the field post harvest and immediate cleaning and packing in appropriate materials. This can be stored temporarily to allow for bulking and collection from various producers since small producers are unlikely to make the requisite volumes. The ideal transportation mode between farm or collection centre and the port of export is on refrigerated trucks. At the port, cold rooms to maintain the temperature are a requirement. The systems are a combination of infrastructure and equipment. The bulk of these facilities are too sophisticated for small holder and subsistence farmers.

As indicated above, Uganda lacks these facilities along the chain. The very first is a lack of refrigeration facilities at the collection centres. There is need for pack houses with sorting sheds, holding bays, offices and appropriate other facilities that conform with market standards. Farmers have to improvise by using charcoal coolers to maintain low temperatures. Uganda’s climate is generally hot and can cause deterioration and spoilage of fresh produce rather quickly leading to losses. The state of the roads also increases travel time which demands that the time taken to travel should be done under controlled temperature conditions in order to preserve the state of products. Exporting companies have modern equipment but they operate in an environment where everything can still be improved. They have a few refrigerated trucks and are particular about the need for timely delivery and proper handling of products.

Along the chain, the contributions of main players are important. For example HORTEXA co-owns the handling facilities at Entebbe Airport.

2.4 Potential for and challenges of intra-African trade in horticulture

Europe and COMESA are the major destinations for Uganda’s exports. The EU was the destination for 46% of Uganda’s exports in 2005 while within COMESA, Kenya is Uganda’s largest trade partner.
Table 4: Export Destinations, 2005

<table>
<thead>
<tr>
<th>By regional grouping (share of total exports)</th>
<th>Top ten export destinations and products</th>
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<tr>
<td></td>
<td>Share of total exports</td>
</tr>
<tr>
<td>European Union</td>
<td>Switzerland</td>
</tr>
<tr>
<td>COMESA</td>
<td>Kenya</td>
</tr>
<tr>
<td>Other Europe</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Asia</td>
<td>Belgium</td>
</tr>
<tr>
<td>Other Africa</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>Middle East</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>North America</td>
<td>DRC</td>
</tr>
<tr>
<td>South America</td>
<td>Rwanda</td>
</tr>
<tr>
<td>Rest of World</td>
<td>France</td>
</tr>
<tr>
<td></td>
<td>Sudan</td>
</tr>
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Over the last five years, there has been a shift in the destinations of Ugandan fruit exports. The dominance of the European market is unquestioned throughout the five year period. However, while there were only three regions importing fruits from Uganda in 2003, there has been an increase that now includes North America, Oceania, and East Asia. The Caribbean imported fruits from Uganda only once in 2005. The more interesting trend is the rise in Africa’s shares as a destination of Ugandan fruits from 2% in 2003 to 23% in 2007. This growth is mainly accounted for by an increase in Kenya’s imports of pineapples and watermelons. It is alleged that the fruits imported by Kenya are mainly for re-export as Kenyan products. There has been an increase in trucks from Kenya entering Uganda and going directly to the farms to purchase from source without involving middle men. While Kenya was the only importer in 2003 and 2004, Sudan, Egypt, Rwanda and South Africa started importing Ugandan fruits in 2005. The number of COMESA and African countries importing fruits increased in 2007; Tanzania imported nuts, Rwanda pawpaws and DRC (fresh apples) Djibouti, Burundi (plums).

Table 5: Fruit export destinations (Per cent) 2003-2007

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Europe</td>
<td>68.0</td>
<td>64.1</td>
<td>67.5</td>
<td>79.5</td>
<td>92.1</td>
</tr>
<tr>
<td>North America</td>
<td>1.6</td>
<td>0.8</td>
<td>1.4</td>
<td>3.2</td>
<td>-</td>
</tr>
<tr>
<td>Africa</td>
<td>23.0</td>
<td>28.2</td>
<td>25.3</td>
<td>6.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Middle East</td>
<td>6.5</td>
<td>6.9</td>
<td>5.7</td>
<td>9.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Oceania</td>
<td>0.9</td>
<td>-</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Caribbean</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.6</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Caribbean and East Asia were occasional importers of fruit registering insignificant volumes

Source: Derived from UBOS figures
As Table 5 above shows, Uganda’s share of fruits exported to Africa has been increasing. In reality the volumes are still small. However, the potential for expanding fruit exports to Africa is adequately demonstrated. There is a market that can absorb more fruits from Uganda. Out of the nine (9) African countries that imported Ugandan fruits, five are Uganda’s neighbours. The other four Burundi, Djibouti, Egypt and South Africa represent the length of the continent. A number of African countries cannot produce the range of fruits that do well in Uganda and would be an easy market to tap into. The indications are that Africa offers scope for intraregional trade in fruits and vegetables and that Uganda has not reached production levels that could satisfy the regional market’s demand for these products. These are markets that are less stringent in their quality requirements which would offer a development opportunity for fruit production both in terms of quantity as well as quality. These prospects require that Uganda devise/design policies that will lead to the establishment of the region as a major market and export destination especially of horticulture produce.

Regional trade plays a very significant role in Uganda’s external trade; within regional trade, trade with COMESA countries is the most important. Most of the regional trade occurs under preferential market access conditions within COMESA or EAC, which totalled (sum of imports and exports) 8.1% and 7.7% of GDP, respectively. For the countries in these regions to be part of the market for Uganda’s fruits and vegetables, it is essential that there be assured supply. The Technical Services manager at NAADS contended that markets for fruits are not the main problem. Uganda is not producing enough to supply and satisfy all markets that demand tropical fruits which Uganda produces. The objective for enterprise development at the farm level is to increase and accelerate fruit production. Standards will be handled as the production develops. This makes sense because even in developed markets, demand for fruits appears to be growing with a shortage of good quality fruits to satisfy this. This offers scope for increased exports.

Uganda has the advantage of its geography which makes two growing seasons possible. Two production cycles are possible in central Uganda while outlying regions have one longer growing season making increased fruit production possible.

Challenges
The potential for increasing intra-African trade in fruits – increased fruit and vegetable exports to other African countries is not without its challenges. The major challenge would appear to be inadequate supply of fruits. There is not evidence that Uganda is producing enough vegetables to consider exporting to other African countries. If anything, such increase would only come from diversion of current exports.

Another key challenge to intra-African trade arises from transport and weak infrastructure linkages and connections between countries in the region, let alone further away from Uganda. The journey by road to neighbouring countries takes on average 5 hours from Kampala which is in Uganda’s central region which currently produces the most fruits. Threats of deterioration and spoilage are real in the circumstances. If anything, the trade would not be of fresh fruit and vegetables as there would be losses caused by transport bottlenecks and constraints. In addition, the cost of freight between African capitals is high which would render the growth of fruits and vegetable trade unviable.

Producers have argued that the prices offered in African markets are not attractive which explains the apparent focus on European markets. In fact, it has been observed that Kenya, the largest destination of fresh fruit and vegetables, buys for re-export of the products as Kenyan products. Where re-export is the motivation, then buyers in Kenya are unlikely to offer good prices. They are likely to offer prices which will allow and enable them to make profits on re-exports of fruits and vegetables. Uganda might need to identify the markets to which Kenyan business re-exports fruit sourced from Uganda and supply these directly at competitive prices. Care must be taken however, not to lose these markets if questions are raised.

In spite of efforts to promote intra-regional trade, it is evident that this is not all smooth sailing as partners appear to be suspicious of one another’s motives and some barriers to trade remain in place and others are being erected. Recently, Kenya and Uganda have had disagreements relating to the beef and day old chicks trade. Cargo transiting other countries could be held up and increase the costs and reduce viability. Africa needs to deal with inefficiencies at their borders and improve efficiency and smooth flow of goods into, out and through their territories.
2.5 Potential for Improving Uganda’s Participation in the Global Value Chain for Horticultural Products

According to Wiegratz et.al (2006)

A value chain describes the full sequence of discrete value-added activities needed to bring a specific product/service from its conception through the different stages of production to its use and final disposal after use. The activities that comprise a value chain can be contained in a single firm or strategically divided among several firms. In global value chains, activities are divided among multiple firms and spread across wide geographical spaces.

Value chain analysis involves analysis of the processes broken down or fragmented activities and coordination of economic activities that occur as goods move from production site across borders in trade to the final consumer. This integration of packages of activities can be vital for improved trade and better competitiveness depending on where they occur. It might be essential to shift activities in order to take advantage in one country or another as conditions determine.

In this study, the potential for improving Uganda’s participation in the global value chain for horticulture products must trace the activities involved in horticulture (in this case fruit and vegetable) trade and highlight or isolate those value adding activities that could be better handled in Uganda. More importantly, the potential for improving Uganda’s participation in the global value chain must seek to identify appropriate entry points for Ugandan fruit production in the sequence of activities that lead to delivery of fruits to international and regional markets. It is clear that Uganda is currently involved in production of fruits and to an extent, vegetables which are traded. Along the value chain from production to the market are a number of discrete entry points.

Considerable research has been done on value chain analysis in Uganda18. The findings are that Ugandan firms are increasingly getting involved in global value chains. Uganda’s participation in global value chains for horticultural products would basically be done by individual firms and organisations at various points along the chain. It brings the issues of trade competitiveness from the macro level to micro level of industry and value chain evolution. Firm strategies of interaction and cooperation can also be value creating and value enhancing. Firm level value creating or value adding activities reduce costs and improve competitiveness. They are a source of volume and profitability growth. As such, any analysis of prospects/potential for improved value chain participation must highlight prospects for

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18 Two important studies were funded by UPTOP and done by Wiegratz et. al. in 2006 and 2007.
Ugandan firms’ taking over certain activities and improving them or adding value to improve competitiveness of products traded in the regional and international markets.

There are a number of key drivers of global value chain arrangements among which are quality, observation of contractual obligations and associated threats of penalties in case of default, technology, standards, regulations, investment, increase in global supply and competition, market dynamics, air freight availability and costs, volumes, innovation and level of skills. Attention to all these will create and add value that will enter the process at various points along the supply or trade chain. Improvement in the participation of Ugandan firms trading fruits and vegetables would come with competitiveness of such firms. However, for Uganda, major issues determining improved participation relate to increased and dependable supply, improved quality of fruits and vegetables, better handling facilities and systems at every point from the farm to market chain. In this regard, Uganda has a challenge to improve the infrastructure internally. This would increase volumes of fruits and vegetables finding their way to the market and reduce wastage. Improved road networks would see volumes increase even without increased production while collection of products would be made easier and could be a possible source of cost reduction.

Adding value arises from eliminating waste, reducing costs, becoming more efficient and reducing transit times. A quicker flow of fruits and vegetables can save and reduce costs. The human resource element is a critical ingredient to adding value and one of the primary sources of value in the value chain. The access to requisite and efficient skills at every node in the chain can create and contribute to value improvements. It is the little additions at every point along the chain that make a difference. When Uganda is viewed as a safe and dependable source of fruits and vegetables by the numerous would be customers, then its participation in the global value chain will have improved.

Another major source of improvement lies in technology. It offers scope for high yielding fruit varieties production, lower costs of production, improved transport and storage and maintain acceptable levels of freshness of product. Alternatives exist for supplying fruits and vegetables in other forms accepted by the market. There has been a drive to dry fruits and vegetables for export in as much as there is increased participation through the production of organic products. Some of this has attracted buyers to backward integrate by coming to invest in production. Increased investment is a basis for integration in the global value.
Certification for readiness to engage in organic production or drying of fruit is an added area of possible investment. Packaging and preservation, cold chain, and related infrastructure offer possibility for adding value and thus participation in the value chain.

Inter-firm relationships between Ugandan sellers and their counterparts in export markets for fruits and vegetables are important for the efficiency of the value chain and improved participation in the global value chain. Buyer firms in developed markets have worked to develop the behaviour, delivery capability and reliability of the exporting firms in Uganda. The form and nature of the relationship that evolves is important for value chain performance. Pure market type and coordinated relationship are the dominant forms. Market type relationships are characterised by arms’ length transactions where the buyer is only interested in sourcing from the seller firm because it has the product to be traded. When it fails to supply, the buyer will look for other competent suppliers to replace the one that has failed. On the other hand coordinated relationships involve the buyer assisting the seller to either raise supply to required levels, meeting required standards, providing the seller with information that makes it possible for the seller to perform and meet expected targets. These relationships are important when studying global value chains and definitely contribute to improvements in participation. There will normally be agreed roles and activities for each party to ensure that the relationship yields positive outcomes for the seller and the buyer. For Uganda’s fruit and vegetable sector, identifying and initiating such relationships which may involve investment by foreign firms to strengthen the chain will be an important development. Very often, limited resources are responsible for inadequate attention being paid to standards or maybe behind the inability to raise the requisite volumes. However, FDI in fruit and vegetable production and processing for export might happen to the exclusion of small holder farmers.

In production economics, specialisation and economies of scale are important dimensions for both productivity and efficiency. Pursuing specialisation enables a firm to learn from repeated activities to do them well and become much more proficient in performing such activities to the extent that there can be ways of reducing costs, improving productivity and increasing production overall. In the context of this discussion on fruit and vegetable trade, which is dominated by small scale and subsistence farmers, these cannot be achieved at the production level. However, there is scope for collection, transport and handling to be aggregated for better and more efficient performance.
The set of Ugandan firms’ activities in the global value chain involve the production related side such as quality control, sorting, packaging, logistics, training and product development while those for buyers focus on marketing and sales, repackaging, quality control, product development, logistics, networking and customer relations. The crossover point would require that the buyer firms in coordinated relations provide information to the seller on knowledge and providing feedback from the consumers. The seller firms expect support and assistance with production, technology, organisation, human resources, markets and marketing, logistics and business management.

Continuous upgrading of system and activity capabilities along the chain would be a value adding source along the chain that would improve performance.

2.6 Policy Conclusions, Lessons Learned and Recommendations for Action at the National, Regional and International Levels

Having analysed and outlined developments in the fruits and vegetable production and trade in Uganda, potential that this sector has and the challenges it faces, a few recommendations are in order as a way of encouraging and stimulating further development of the sector with huge prospects for impacting livelihoods at the production level.

It is clear that there is substantial production and trade of fruit and vegetables produced in Uganda. The main actors in the sector are small holder subsistence growers who engage in fruit and vegetable production for their own consumption requirements but have found themselves with significant surplus which they sell. This is a characteristic of the agricultural production in Uganda. However, production can be intensified and upgraded to international market requirements on quality and standards in order to increase targeted market production and trade. The main challenges arise from the state of Uganda’s infrastructure especially road networks which limit access to some parts of the country. The limited access means that fruits that are exported are mainly produced in Uganda’s central region. Some fruits produced in far off areas from Entebbe and Kampala must be rotting on account of logistical problems leading to failure to reach the market in good time and in acceptable condition. The cost of transporting produce to markets is high and for high volume fruits, where transport to market is by air,
competitiveness of production is compromised. There is always pressure to keep fruits fresh until they reach the consumer. Ugandan fruits have increasingly been finding their way into regional markets. Some nine countries in Africa are importers of Ugandan fruits. However, the continent has 53 countries, most of which do not enjoy similar agricultural conditions that exist in Uganda and cannot produce the tropical fruits that Uganda produces. There is therefore scope, if production can be increased, for Uganda’s fruits to be exported to more African markets. These markets are still less stringent on quality, standards, sanitary and phytosanitary/quality management capacities and product quality standards than developed markets and would be useful ground for Ugandan producers to develop their capacities to produce quality and quantities that finally conform to international requirements.

Lessons Learned and Recommendations for Action
There are a number of national policies and strategies in Uganda that could give effect to increasing fruit and vegetable production and trade. Fruits and vegetables can contribute immensely to the livelihood and socio-economic well being of the poor in Uganda. There are challenges and opportunities which hinder fruit and vegetable production growth but could enhance production and exports. Fruit and vegetable production creates and offers opportunities for employment, improved income, better welfare and poverty reduction. Deliberate interventions will be required in to achieve rapid expansion in fruit and vegetable production and export.

1. **Infrastructure is very important for horticulture production and trade**
By far the most significant requirement, albeit indirectly, for increased production and export of fruits is the development, upgrading and improvement of infrastructure. On a broad national level, Uganda requires more passable roads, a working railway system and air transport of goods to speedily reach the markets in acceptable state of freshness. Road construction and maintenance are major investments involving large expenditure that is required to keep traffic and traded goods moving in the process reducing the cost. This will reach all parts of the country and integrate them within the production and exchange system which will encourage those in remote areas to produce cash crops as well.
More specifically, and relating to fruit and vegetable infrastructure, the current system requires a functional cold chain to maintain freshness of produce from the farm up to the consumer. Cold storage facilities are required from the point of harvest, through transportation to the final market. This calls for major investment expenditure in cold storage facilities which small holder farmers or traders can hardly afford. For example, only one of the vegetable exporters has cold chain facilities. There are only 2 professional pack-houses, and a few rudimentary ones that do not meet international standards. The installation costs of these are beyond the reach of small holder subsistence producers.

**Recommendation**

- Devise mechanisms for interventions in the establishment of infrastructure to assist the small holder producers or other players who provide the requirements along the chain as a business for fees. Government should target to construct and maintain trade enhancing road and railway infrastructure.
- Consider to introduce actionable subsidies to alleviate the transport and transit cost burden of producers and exporters. Rwandan experience could provide a hint on the export impact of such an incentive.
- Development partners of Uganda should endeavour to provide the latter non-commercial, non interest bearing loan especially earmarked to agricultural sector and rural development

2.  **Export growth**

Although Uganda has a relatively low export market share for most of its horticultural products, this offers significant exports growth potential. Growth is possible from existing buyers while potential for growth of horticulture exports exists in neighbouring and other African countries. It was shown that Ugandan horticulture exports are finding their way into further markets such as South Africa. In fact Sub Saharan Africa is a potential market that could be tapped at much lower costs with its less stringent market entry conditions. It is essential to capitalise on preferential market access arrangements available in the region as well as reduce or eliminate, on reciprocal basis, tariff levels and other duties to encourage the growth and expansion of intra-African Trade

*Recommendations*
Increase production of fruits and vegetables for increased demand from existing markets and to supply potential regional markets where market entry conditions are less demanding and growth opportunities abound. With increase in export volume, the quality should not be compromised.

3. **Cost of and access to finance**

The cost of and access to finance are major impediments to the growth of agriculture. Lending appears to be too regimented and there is a reluctance to venture out of the conservative practices of banking in recognition of the specific circumstances prevailing in Uganda. Agriculture is only recognized as a business in limited circumstances. The banked public is very small – about 10 percent. There have to be ways of reaching the rest of the population. The government has programmes that highlight the importance of agriculture as a business especially under PMA. For the small holder, transformation needs capital injection. There is a need for long term facilities which can be accessed both from within Uganda and from outside through membership in regional financial institutions. Uganda Development Bank’s capacity would have to be increased as it is the one key player in the provision of medium term finance and target small holder farmers. This challenge could also be addressed through the introduction of more innovative financial products through disintermediation. Government should also make efforts to provide credit guarantee schemes for small producers to encourage private banks and micro-finance institutions to bridge the liquidity gap in financing small producers and exporters of horticulture. Appropriately designed lending schemes for this subsector of agriculture would be useful in increasing capital investment in irrigation, storage and grading sheds, cold rooms and related facilities that would make producers more efficient and better able to compete.

**Recommendation**

The Government of Uganda establish special facilities of either seasonal or multi-year loans including the provision of credit guarantee schemes for small producers and exporters to boost investment in fruit and vegetable production and trade. Pursue group lending schemes farmers organized in production groups.

4. **Farmers Organisations**
Farmers' groups are very effective ways of mobilizing production and marketing of products, disseminating information and establishing acceptable practices in agriculture. Business linkages have been known to be effective ways of increasing both production and productivity. Related approaches such as contract farming have also been demonstrated to be effective ways of increasing production capacity. These arrangements can be used to stimulate the production for export if farmers are assured that what they produce will find markets. Examples of cases where business linkages made immense contributions and harnessed production, improved productivity and quality of production are: Kapchorwa Farmers Association which formed a company to coordinate production and sale of barley under contract to Uganda Breweries Limited and Kinyara Sugarcane Growers Limited, a company formed from the former association of growers to produce and supply sugarcane to feed Kinyara Sugar Works Limited milling requirements. Both cases have demonstrated successful transformation that culminated in improved performance by and better incomes for the farmers. Farmers’ associations have an influence but the examples given here have also been fortunate to have ready buyers for their produce which provides scope for intensifying production. For specific fruits and vegetables, identifying players who would buy in to some kind of linkage arrangement including international firms may help to entrench and boost production and would bring with it technology, standards and international best practice.

Recommendation

Actively encourage the formation of farmers’ groups as a way of mobilizing them, and building efficiency grounds for training and extension services, information dissemination, input supply, marketing and possible group lending arrangements. Introduce and use a business linkages approach between small holder producers and large buyers – domestic and international - to develop production and trade capacity in the fruit and vegetable sector. The established buyer or processing large corporate will provide coaching, mentoring and coaching on technology and production enhancing techniques.

5. **Skills and Human Resource Development for Horticulture**

The export of fruits and vegetables depends on there being both fruit and vegetables to trade. Production is a function of the obvious inputs of land, labour and capital. Landholding is fragmented in Uganda. It is this that provides the small holder some basis
on which to produce fruits and grow other crops. However, increasingly, skills (human resource development) and institutional capacity are major inputs. National level training is weak and no university in the country offers a degree in horticulture. In addition, there are no adequate facilities or equipment to run such a degree. A number of projects including the IDEA Project have highlighted a focus on intensive horticultural training. Customised training in target crops is an area where joint private, public and donor activities can pay massive dividends as more skills oriented training is necessary to improve productivity. Government should look at addressing skills challenges and deploying qualified personnel close to the production levels of farmer activities. Further, on the job training as well as motivational intervention to inject a sense of purpose and achievement by workers is required to stir them into recognising the value of their work and the importance of what they do. Staff should take pride from their ultimate contribution to improving people’s welfare and to the general development of Uganda. These contributions need to be recognised as a basis for increasing motivation. Such orientation can also be achieved by changing the curriculum in order to give innovation a boost.

Institutions such as NAADS, need competent staff and capacity to tackle their roles more effectively. The environment within which they can bring about change among the small holder farmers and their ability to adopt production technology will have an impact on production.

**Recommendation**

Develop appropriate skills and well motivated human resource capacity to deal with and provide advice on the development of the horticulture sector with a focus on small holder fruit and vegetable production. Government and its development should work towards improving horticulture skills levels for improved productivity.

6. **Government policy on horticulture**

Government policy is still vital for the guidance of development of the agriculture sector in general and fruits and vegetable production and exports in particular. As such, a fruits and vegetable policy in agriculture will be instrumental in driving growth of production. There is an array of policies and strategies that are in place. Their operationalisation would greatly lift the performance of fruits and vegetable both in terms of production and trade. The myriad of policies and strategies appear to get in each other’s way and
tend to cloud performance. The Government of Uganda should put in place private sector development strategy to encourage the emergence of private sector and facilitate its growth and expansion as a complement to public sector growth and to the economic transformation of Uganda.

Recommendation
Streamline and implement the various policies and strategies that have an impact on fruits and vegetable production and trade. In particular, specific mechanisms must be instituted for the implementation of the PMA and organic production both of which would increase the opportunities to increase income for the small holder farmers and the poor and improving the chances for achieving the objective of poverty eradication.

7. Increasing supply of and value addition to fruits and vegetables
A value chain approach focuses on value addition points along the chain. In fruit and vegetable trade, drying of both fruits and vegetables uses low levels of technology which would be useful for this market. This would reduce the amount of waste and extend the shelf life of perishables. The products can be exported to areas where preservation maybe a problem. Further value addition is possible through the production of juices, pulp and concentrates. Both approaches offer advantages in technology acquisition, business improvement, and quality and standards conformance. It is possible to build partnerships between small and medium enterprises with established businesses operating in Uganda and internationally. However, where international contracts are involved, protection of the small local firms against exploitative type relations is essential through the law and assistance in understanding and complying with contractual requirements. Established companies foster the development of products to international standards. This needs guidelines and frameworks within which players have specific roles and responsibilities to fulfil.

Recommendation
Identify points and opportunities for value addition along the value chain. Engage investors at appropriate stages in the value chain to increase production volume and quality of fruits and vegetables for target niche export markets.

8. Investment and Agriculture as a business
It has been observed that private investment triggers export growth which in turn causes economic growth. It is imperative that Uganda continues to be an attractive destination of foreign direct investment which can be used for acquiring new technology and skills that can be used to benchmark skills requirements for a growing economy.

Agriculture is a business and those who invest in it would like to see assured returns. Unfortunately due to a number of prevailing conditions in Uganda, operations in agriculture are seen less as business and thus tend to attract those who largely depend on the sector for basic livelihood. It would be beneficial to introduce and increase the business oriented producers to provide leadership through demonstration of the attractiveness of the business side of agriculture. This would provide even the small holder farmers something to aspire for. Also commercialization is important in transforming subsistence production and converting subsistence activities will increase the business awareness levels in the sector and would help transform agriculture bringing fruit production in line with the aspirations outlined in the PMA.

**Recommendation**

Create and maintain an environment conducive to the growth of business and attract FDI with a view to attracting investors. Highlight the business opportunities in agriculture and encourage entry and investment growth in agriculture and fruit and vegetable related business.

9. **Research, quality assurance schemes and conformity with standards**

Quality assurance schemes and conformity with standards will address the issue of quality in fruits and vegetable production. Selling to the world requires that fruits and vegetable produce be benchmarked for quality against the competition. Uganda maybe small to invest in full scale research and development but this can be done with the aim to unpack and adapt technology to local conditions and address needs of local producers to enable them compete in international markets. Compliance with set standards can be the only basis on which products will be accepted and ensure expansion. The issue of standards is a major concern and requires joint action between producers (exporting) and importing countries. Importing countries could help in establishing modern testing centres and recognised certification institutions in Uganda.
Uganda’s seed improvement is weak in that proper and quality materials usually are imported. Domestic development, multiplication and dissemination of high yielding varieties of fruit and vegetables and production of seeds and planting materials with demand in the market are a major task for the research sector yet not much appears to be forthcoming. The challenge, then, lies in linking research to the needs of growers and supply chain partners. Uganda appears to have some of the infrastructure for this but there would be need to re-jig these institutions and set appropriate targets at the same time ensuring that they are adequately resourced for the challenges set for them. In agriculture, creation of conditions for technologically based production capable of producing meaningful volumes would be the way to go.

Recommendation

Create research, quality and assurance capacity to ensure that fruits and vegetables produced in Uganda comply with standards. Orient production to and target regional markets for local products.

10. Trade Development Institutions

Institutional development and the role of government are critical to translate policy into production and exports. A stronger MTTI is required to spearhead trade policy design and implementation for export expansion. The institutions that are involved will need to partner and coordinate efforts to grow trade. Such development will be the basis for a strategic development on development and export expansion. Trade issues need to be handled as trade rather revenue or political issues. The Uganda National Bureau of Standards will play an important role in ensuring compliance with international standards.

Uganda’s absorption capacity for donor aid inflows can be utilised on boosting infrastructure development especially roads. This would ensure that both infrastructure and trade facilitation would be geared to international levels, giving a reasonable life.

Recommendation

Strengthen the capacity of trade development and trade policy institutions in order to ensure translation of policies and development goals into reality.
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TERMS OF REFERENCE (TORs)

1. The project specifically seeks to: a) assess the potential contribution of horticultural trade such as flower, tropical fruits, vegetables, nuts (or ground nuts), etc of international trade significance from selected African LDCs to their socio-economic progress, b) analyse poverty reducing impact of such exports, notably by creating employment opportunities for the rural poor, c) to identify and elaborate the needs and priorities at the country level and to formulate comprehensive proposals for actions at the national, regional and international levels, and d) to enable beneficiary countries, through export diversification, to acquire new knowledge and technology in producing and marketing high-end products. These will include examining appropriate and flexible policy approaches as well as identifying policy recommendations so as to respond to the opportunities and challenges of the rapidly changing world market in the commodities sector.

2. The national consultant shall carry out a case study on the subject and prepare substantive report of about 40 - 50 one and half spaced pages. The study should:

- assess the national policies and strategies as well as the role and potential contribution of horticultural sector to the socio-economic progress of a country on which he/she is assigned to do the work,
- review supply- and demand-side constraints (most important ones) undermining the contribution of the sector to the growth and development prospect of a country,
- examine production techniques used and available transportation systems including storage facilities as they impact horticultural exports as defined above;
- explore the potential for intra-African trade in horticulture and the challenges thereof,
- explore the potential for improving the participation the country in the global value chain for horticultural products, and
- provide policy conclusions and lessons learned as well as recommendations for action at the national, regional and international levels.