



Smallholders' involvement in commercial agriculture / horticulture in ESA Region

By James Ssemwanga

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I. Present status of involvement of smallholders in horticultural production in Uganda

I.1. Proportion of smallholders' horticultural production in Uganda

1. Horticulture is one of the fastest growing sectors in Uganda employing a large number of people in rural areas. Total employment creation for six garden commodities in Uganda is indicated at 37 thousand full time units of employment, excluding hired labor on the farmⁱ. This same source estimated that there were at last 37,000 formal jobs in the horticulture sector, 30,000 being in the fruit and vegetable sector alone. The number of households involved in horticulture is harder to estimate though it is known that the average size of farm is less than 2 ha., with all crops including fruits and vegetables. Over 75% of the workforce on fruit and vegetable farms as well as flowers is female.

2. Horticulture exports from Uganda are in the region of US\$35 million per yearⁱⁱ. Uganda is currently the second largest producer of FFV in sub-Saharan Africa, after Nigeria, producing about 1.1 million mt/yr. In 2004, Uganda's fruit and vegetable production was equivalent to about one percent of the world's total production. For cut flowers, Uganda was third in the list of exporters to the EU in 2005, with two percent of total exports to the EU, behind Kenya (40 percent) and Ecuador (six percent). The monetary value of both FFV and cut flowers has been increasing steadily since 2003, although still less than 20% of FFV gets marketed. Through a combination of increasing population, urban drift and increase in purchasing power, the local market for horticultural crops will be growing – probably in the order of 3 to 5% per annum – which means that the total domestic horticultural market is growing by between 33,000 to 55,000 mt per year. Organic agriculture in Uganda has grown in value from US\$7.7 million in 2005 to US\$22.5 million in 2008. These are important opportunities considering that over 40% of current production of FFV is undertaken by smallholders

and that the population in Uganda is growing at a rate of 3.3 percent per year, needing jobs in the future.

3. Smallholders in many parts of the country can produce vanilla, cocoa, and papain, and their potential as cash crops to supplement coffee has been largely untapped. Further, small-scale growers in remote areas have a comparative advantage in vanilla over large-scale commercial farmsⁱⁱⁱ. Smallholders are the custodians of indigenous varieties which have untapped potential in terms of value addition and new product development^{iv}. However, those that are making the transition from agriculture to agribusiness find it difficult to cope with the demands that their new status puts on them in terms of management and use of technical knowledge.

1.2. Constraints regarding smallholders' involvement in horticultural production in Uganda

1.2.1. Limited access to land for the youth and women

4. Because horticulture production can occur on small plots it suits the land less youth and women in Uganda. It is also true that vegetable production tends to be more lucrative near urban markets. For these reasons there is substantial interest in the interaction between gender and environment hazard issues surrounding urban horticulture, which utilizes dump sites and waste lands around the cities.. Of the farmers growing food crops on contaminated sites in Kampala City for example, 55% are women, producing sugar canes, bananas (matooke), yams, maize, cassava, sweet potatoes, beans and other vegetables for home consumption and sale to immediate markets^v. They are exposed to physical, chemical, biological and psychosocial dangers associated with dump sites that they use. Their rural counterparts are subject to the complex land tenure system in Uganda that restricts ownership within the confines prescribed under the Land Law of 1996 which although modified in 2007, still leaves youth and women struggling to access land for production.

1.2.2. Insecure Seed Systems

5. Informal seed systems in Uganda contribute to over 90% of the seeds used in agricultural production. The key obstacles faced by small holders in Uganda with regard to seed include poor production, storage and certification systems, exacerbated by a lack of reliable information and inadequate policy. The commercial seed sector in Uganda is dominated by the private sector and it has a fair share of problems when it comes to vegetable and fruit trees. To begin with the commercially available seeds are usually imported, which makes them expensive and out of reach of the small holders. Moreover as the experts say, such seed may not perform well under local conditions^{vi}, especially with shifting agro-ecological zones caused by climate change. There is one private tissue culture laboratory called agro genetic technologies (AGT) and at least

three others operated under the National Agricultural Research Organisation (NARO). None of the tissue culture labs is focusing on horticulture though they produce plantlets of pineapples, macadamia nuts, bananas and fruit trees.

6. Smallholders tend to rely on their own home-saved seed but may get relief seed supplies from government and the NGO sector in sporadic operations. In such cases the donation is often procured according to strict guidelines that require a competitive bidding system that forces suppliers to compete on price more than quantity. This happens in a situation where the seed users are removed from the manufacturers and the major customers are not the users, unable to directly feed back to the market that supplies the seeds. Hence growers easily end up with poor seeds.

7. Cross border seed trade is hampered by regulation as it is a requirement that seeds are tested by MAAIF, often taking long periods of time to be released. The system of testing is sometimes seen as lacking transparency and being under manipulation by the local seed companies to protect their interest.

8. On the flower side, there is an estimated 120 smallholder growers in Uganda, of which 25 have a total of 5 acres of chrysanthemums located around Kampala. Smallholder flower growers all need to import planting material for lilies, gladiolas, orchids, gypsophila, solidago and others from Kenya. There is a drive to promote tropical flowers^{vii}, which would require boosting seed production in the country.

9. A number of organisations have come together to address the issue of inadequate seed systems through measures like seed fairs. One of them was organized jointly by Southern and Eastern Africa Trade Information and Negotiations Institute-Uganda (SEATINI-U), Volunteer Efforts for Development Concerns (VEDCO), Participatory Ecological Land Use Management-Uganda (PELUM-U) and East and Southern Africa Farmers Forum (ESAFF). Another one was organized in December 2008 by NaCRRRI under the theme 'Vegetables for health and wealth'. These seed fairs brought together farmers, scientists, government officials, academia, media and civil society to explore ways of improving provision of quality seed material.

10. The government through a fund from the Bill and Melinda Gates Foundation through the World Vegetable Centre has embarked on a two year project, 'Vegetable Breeding and Seed Systems', to develop and adapt seed varieties that grow well in the local environment. The project is implemented through the Horticulture program at the National Crops Resources Research Institute (NaCCRI), Namulonge. The focus in the beginning is tomatoes, egg plants and onions but other vegetables are being considered.

11. Uganda National Seed Potato Producers' Association (UNSPPA) is a farmer response to the need for good seed potato. Formed in 2005, this organization sells potato seed to a number of grower organisations in the country that have seen the benefit of starting with quality seed. Arising from use of improved potato seed,

production per acre of potato among the UNSPPA-linked growers has increased from the original 15 bags/acre to the current 70-100 bags/acre^{viii}.

12. Government has instituted a policy on genetically modified organisms but the accompanying laws are yet to be ratified by parliament. A manual is available for Transboundary movement of GMOs into Uganda. By 2008, only GM cotton and bananas were being tested, the latter under the National Agricultural Research Laboratories, Kawanda. This is happening amidst protests from civic organisations such as Advocates Coalition for Development and Environment (ACODE) who contend that the institutional and regulatory framework to accompany introduction of GMOs is still to be developed, leave alone provision of information to farmer and consumers on the materials^{ix}. One of the criticisms of the laws is the lack of precision in the precision for socio-economic consequences of introducing GMOs and how to deal with them.

1.2.3. Poor Input Distribution System

13. The government of Uganda recognizes the lack of inputs tailored to specific products as an important constraint in the horticulture sector. Even so, only 20% of export firms provide inputs to their out growers. Almost all inputs have to be imported and it is reported that there is virtually no competition between different suppliers, so prices are 10 – 20% higher in Uganda than in Kenya. Some initiatives in production of packing material and production of growing medium have resulted in good supply of the former and less so for the latter. There are also soil testing facilities for agriculture, but these do not specialize in horticulture. Although Uganda has plenty of high quality water for production, this water is not well tapped as the infrastructure for doing so is not developed nor is the technology well spread.

14. The Uganda National Agro Input Dealers Association (UNADA) is an apex organisation of all agro input dealers in the country, formed in 2005. It has funding from donors to implement a voucher system to provide inputs to farmers, in the process helping sustain the organisation. UNADA does not focus on horticulture but the voucher system targeting small holders is available for them to access inputs that they may need.

1.2.4. Underdeveloped Irrigation Systems

15. Smallholders in Uganda hardly use irrigation for production. Only 7% of the land that could be irrigated is actually irrigated. Even then technical support to irrigated production is still limited. There are several large scale irrigation schemes in Uganda that originally were targeting smallholders such as the Mubuku scheme. They were run down in the latter part of the last century but under two projects, the Farm Income Enhancement and Forest Conservation Projects, the Government has secured Loan

funds to rehabilitate four old schemes (Mobuku, Doho, Agoro and Olweny). Under the Water for Agricultural Production Project four other schemes will be rehabilitated (Kiige, Dina, Labori and Atera) and are being marketed by the Uganda Investment Authority as possible sites for irrigated pineapple production.

1.2.5. Low Farm Level Organisation and Links to The Outside

16. An elaborate structure exists for organizing farmers and linking them to the outside world. The first category is Farm Level Organisations (FLOs) or Producer Organisations (POs) within which there are usually Lead Farmers (LFs) to provide an anchor for extension services and demonstration of technologies. They may take the form of cooperatives, often with more than one crop enterprise in focus. Primary Marketing organisations or produce marketing organisations (PMOs) combine several POs and either link to a buyer in the country who may or may not be linked to an export market (e.g. Nama Area Cooperative Enterprise, Musamba Environment Group, Awagwa Ekku) or link to an outside buyer (e.g. Mubuku scheme).

17. Apex or Service Organisations several PMOs and professionals outside the production sector, and may include academia. The floriculture and horticulture sector has three main professional associations that provide various services to their members. The strongest and most successful is the Ugandan Flower Exporters Association (UFEA). It has established a research and training center, where it runs a floricultural training program in collaboration with Makerere University. The Association has been active in reducing input prices and securing competitively priced air-freight and airport handling. All the major vanilla exporters belong to the Ugandan National Vanilla Association (UNVA), which plays an important role in representing the interests of the small-growers through a system of local associations. UNVA employs its extension workers and conducts regular training sessions for farmers. It receives donor funding as well as funding from exporters. The Horticulture Exporters Association (HORTEXA) is the weakest industry group in the sector. HORTEXA was created in 1994, as part of a strategy to develop non-traditional exports. Initially there was some success with the introduction of hot peppers. However, probably as a reflection of the sub-sector's low profit margins, it has suffered from a high turnover of members as well as encountering problems with its internal financial management. The Horticulture Promotion Organisation of Uganda (HPOU) has of late played a more central role to the fruit and vegetable sub sector, replacing HORTEXA.

18. Although the above structure exists for organizing farmers, almost all structures are still weak as they either were formed in recent years (less than 10) or have had plenty of management problems. The lack of strong organisations means that farm level organizations are seldom linked to any of them, which leaves smallholders unable to benefit from collective action beyond their immediate surrounding.

Issues of Low Trust

19. Lack of trust between farmers and exporters or other intermediaries hampers the development of collective action and value chain integration. For many exporters and other marketing intermediaries, the issue is that farmers are not loyal to their primary marketing organisation due to their need to obtain cash on delivery, having loyal relationships with itinerant buyers who sometimes supply inputs AND credit at the same time, lack of transportation to the central collection centres, timing of purchases and so on. Farmers on the other hand claim that exporters fail to turn up to buy pledged produce and leave them stranded with perishable commodities or sometimes change prices and other terms unilaterally.

I.2.6. Low Access to Financial Services

20. Since the late nineties when only 10 percent of rural people in Uganda, and only five percent of rural poor people had access to finance services such as savings and credit there have been a number of programs to address the issue. Between 2001 and 2004 the bank of Uganda (BoU) implemented a DANIDA-funded Rural Financial Services Component (RFSC) that focused on improving credit delivery systems and building viable and sustainable financial systems for the economically active poor in the rural areas including horticulture farmers. Its achievements included capacitating the microfinance industry, setting up a framework to constantly upgrade the manpower in financial services organisations outside Kampala. Two of the MFIs that received support qualified for the Micro Deposit taking Institution License by BoU and are now able to access market funds to increase outreach to the rural areas. Furthermore the sector was opened up further to foreign banks thus increasing competition. The institutional framework for increasing access to finance at farm level is therefore in place. At issue is the cost of the credit available, the terms on which it is available, and the processes and procedures that do not seem to suit horticultural producers. For example fruit tree growers still have to begin servicing their loans before the trees begin fruiting.

I.2.7. Poor Logistical Arrangements for Marketing

21. Smallholder growers scattered all over the country produce most fruits and vegetables for the local market and export. Production often depends on family and unskilled labor with limited access to specialized advisory services; low external input in terms of pest and disease control, use of improved planting materials and soil fertility enhancement measures and in all cases typical output levels per farm are well below the minimum commercially tradable amount. This means that traders are forced to spend a lot of time linking between several farms to get viable quantities, forcing them in turn to offer very low prices at farm gate. Moreover this scattered production often leads to uncollected produce at the expense of the producer. Bulking in horticulture is rarely

practiced as the cost of doing so wipes out any benefits. This state of affairs limits the farmers to unprofitable markets only.

1.2.8. Complicated Market Access Requirements

22. Rapid urbanization and globalization may have opened up a world of opportunities for smallholder farmers who supply fresh produce but the big supermarket chains have high food-safety, quality and agricultural-practice standards that present both technical and financial challenges. Buyers in the EU, working with growers in Uganda (as well as Zambia and Zimbabwe) and assisted by the NRI in UK (between 2002 and 2006) and the Pesticide Initiative Program (PIP) of COLEACP have developed a management and control system that allows fruit and vegetable smallholders to meet the stringent requirements of high-value EU retail markets. Either a farmers' organisation or an exporter acts as the primary marketing organisation, ensuring that all growers involved comply with the requirements. The primary marketing organisation (PMO) bears legal and contractual responsibility for ensuring that all growers involved in the scheme use the same system and comply with all of the requirements for GlobalGAP, but following the locally adapted version called UgandaGAP. PIP provides training of trainers and the funds for the trained trainers to train farmers in acceptable use of pesticides. All aspects of good agricultural practice, food safety and quality assurance with integrated quality management (QM & QMS) and traceability (vertical & horizontal traceability to plot level) systems are covered. A peer group training system is used in some cases, relying on farmer prepared visual training materials and daily reinforcement. In the process of implementing the UgandaGAP, farmers and cooperative organisations strengthen their ability to negotiate with buyers, suppliers, banks and service providers.

23. So far there are two companies known to have complied with the requirements. Some 85 farmers in the Awaggwa Ekku Cooperative exporting via Jaksons Farms and 23 farmers in the Kamazi Farmers Cooperative exporting via Amfri Farms have adopted the full management and control system to attain EU regulatory compliance for continued access to wholesale markets and in the case of Amfri Farms the growers are aiming for EurepGAP to regain access to high value EU retail markets. A service provider called AMA is using the service provider components of the management and control system to provide training, extension advice, farm inspection and internal auditing for the farmer groups.

24. Market access for processed and semi-processed products gets even more complicated as the hygiene standards are higher and technological requirements are more prohibitive. Larger exporters that can overcome these barriers prefer to work with nuclear farms where they have more control than to have multiple smallholder suppliers.

National Organisations and Programs Responding to the Constraints

25. Various national commodity associations have taken lead in promoting the interests of small holder farmers in Uganda. They all have their own specific entry points, with

few focusing on horticulture. Their work is a mixture of services to members, stakeholders or target groups depending on their constitution, and Collective and Coordinated Action whereby players that perceive themselves to have a common interest come together to deliberately implement one or more events or influence the outcome of events implemented by others. The organisations are the Horticulture Promotion Organization of Uganda (HPOU), a member organization specifically for horticulture, NOGAMU, a member organization for organics including horticulture, UNFFE for all farmers and the Agriculture Council of Uganda incorporating other players besides farmers. There is no database to document the activities of these organisations and programs or their achievements other than through reports and reviews.

The National Agricultural Advisory Services (NAADS) Program

26. The National Agricultural Advisory Services (NAADS) is a program of the government of Uganda designed to increase the efficiency and effectiveness of agricultural extension services started in 2001. The programme covers 710 Sub-counties in Uganda. NAADS aims to commercialise agricultural production by gradually shifting farmers from subsistence to commercial production in the long term. Different farmer types are targeted with different approaches for and encouraged to select their own enterprises. As a result NAADS is not focused on horticulture although its mandate is to work primarily with smallholders. NAADS tries to cover all the constraints that are discussed above. It has empowered farmer groups by putting them in charge of the procurement process for the extension service providers and the inputs used on the farms. On value addition and access to prime markets NAADS has linked citrus and pineapple farmers to processors, dryers and large wholesale buyers. NAADS is funded by donors.

27. The National Agricultural Research Organisation (NARO) has a horticulture program that addresses smallholder issues to some extent but whose primary mandate is technical research. NARO is funded by donors. Among the university sector there is no program to research on smallholders in a focused way but there two strong horticulture courses at Makerere and Mountains of the Moon Universities. Universities in Uganda are funded by the government, with specific programs funded by research philanthropies and donors.

2. Present policies and policy management for smallholders' involvement

28. In Uganda there is no direct policy on horticulture but several policies have a bearing on the sector have been in operation for over 20 years, such as the Poverty Eradication Action Plan (PEAP), the Plan For Modernization Of Agriculture (PMA), Prosperity For All (PFA), environment protection policy, the decentralization policy, the

trade liberalization policy and product standards such as the pineapple and avocado standards. High value horticulture is commercial and hence driven by the private sector with public and non-governmental institutions playing a valuable role in providing support to the market chain in the form of training, extension support, system development, independent auditing and laboratory services as well as consumer protection through standards and regulations.

29. Some policies have worked better than others although it is believed that improvement in livelihoods in general has is attributable other factors besides the policy reforms instituted by government. Experience has shown that smallholder growers require strong partnership commitment from a PMO such as an exporter or commercial packhouse or supermarket buyer. Donor, NGO or public sector driven initiatives have played an important part in brokering such links but need to be sustained and to keep a keen focus on the commercial side of the partnership, to take it through the initial stages that are characterised by mistrust and learning.

30. Various government and donor assisted programs assign farmers specific roles and responsibilities in implementing its programs such as NAADS through their POs and Apex service organisations. Responsibilities include procurement, monitoring and evaluation as well as peer to peer service provision. However, they also are quick to point to the capacity gap that exists among the farmers and their organisations to carry out these responsibilities^x. The main donors supporting horticulture in Uganda include DANIDA and the Netherlands Embassy in Kampala but the EU and other donors through their support to the agriculture and the rural finance sectors in general have funds that can be leveraged for horticulture smallholder support. The Swedish Cooperative Centre supports cooperative development in Uganda and its support can be used to support smallholders in horticulture. Nama Area Cooperative Enterprise near Kampala is one of the beneficiaries of this donor.

31. Donors sitting in Geneva in 2008 on the other hand expressed concern that there was not enough information to link donor assistance to smallholders and that senior macro economists in developing countries including Uganda were not convinced that smallholders had a significant role to play in rural development^{xi}.

3. On-going strategy at regional level

32. Horticulture is prioritized under the CAADP Compact of Uganda. Private companies in Uganda and Rwanda are discussing joint venture partnerships in the sector. The two governments through their respective private sector growth program and Export Promotion Board will broker the joint ventures^{xii} in line with the CAADP compact.

33. On the side of seed systems, the African Seed and Biotechnology Program and various regulatory frameworks developed under the EAC are trying to set up a transparent regulatory system that can deliver quality seed to farmers^{xiii}. ASARECA

initiated a program in 1999 to address the issue of variable requirements across three east African countries and the seed certification systems of Kenya, Uganda and Tanzania now have an agreed framework and structures to conduct performance testing procedures in similar ways, and to have similar standards for seeds, including vegetable seeds^{xiv}.

34. To address the issue of non-uniform country regulatory frameworks, decentralized models such as the Quality Declared Seed (QDS) developed, tested and found to be effective for rice in Tanzania and Senegal should be adopted for vegetable seeds such as beans. In this system the growers themselves are in charge of selecting, collecting, processing and releasing their own seeds with ability to label the products by an agreed quality standard.

35. Information flow and networking is being promoted by the World Bank at regional level through the series of seminars under which this very paper was prepared. GlobalHort is coordinating this project among the Southern and Eastern States of Kenya, Uganda, Tanzania, Ethiopia, Zambia, Mozambique, and Madagascar in a series of video conferences on high value Agriculture in Southern and Eastern Africa.

36. To develop the horticultural sector further the Uganda case needs a number of approaches.

1. Collective actions should be promoted all along the value chains, with emphasis at the farm level but also at Apex Organization level. Already Kilimo Trust based in Kampala is coordinating efforts to build capacity in national Apex Organisations in the region.
2. Capacity building for all levels of organization, not just the farmer-run ones. The strength of farmer led organisations is contingent upon the prosperity of their members who in turn depend on the strength of the next link that keeps them connected with the market. Thus other players in the value chain may have their own organisations that should be strengthened for them to play the role of linking farmers to markets.
3. Water for production and input distribution systems should be developed faster to facilitate increased productivity at smallholder farms.
4. Processes and procedures for rural financial services need to be modernized and made simpler for smallholders to access them.
5. Farm management and technical skills development should be given priority so that farmers can have a wider base from which to select the service providers. Technical skills required at marketing organization such as management and maintenance of facilities like pack houses and wholesale markets is also required.
6. Farmers should be protected from unscrupulous seed suppliers in two ways. Firstly the government should set up strong regulation on seeds. Secondly the interstate seed regulations should be harmonized to encourage more cross border seed movement. Thirdly the role of decentralized, farmer owned seed systems should be recognized and exploited as an additional channel for providing diversified seed supplies.

7. Producers should work within a protected physical environment. To this effect the sector needs to reinforce its drive to UgandaGAP implementation and to work with urban authorities throughout the country to make peri-urban horticulture production safer.
8. To coordinate smallholder producers at the regional level should be done by the East African Community (ECA) and COMESA at a wider scale as they already have programs that coordinate other related efforts.

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