



Policy Paper

SCALING UP VALUE ADDITION IN AGRICULTURE PRODUCTS

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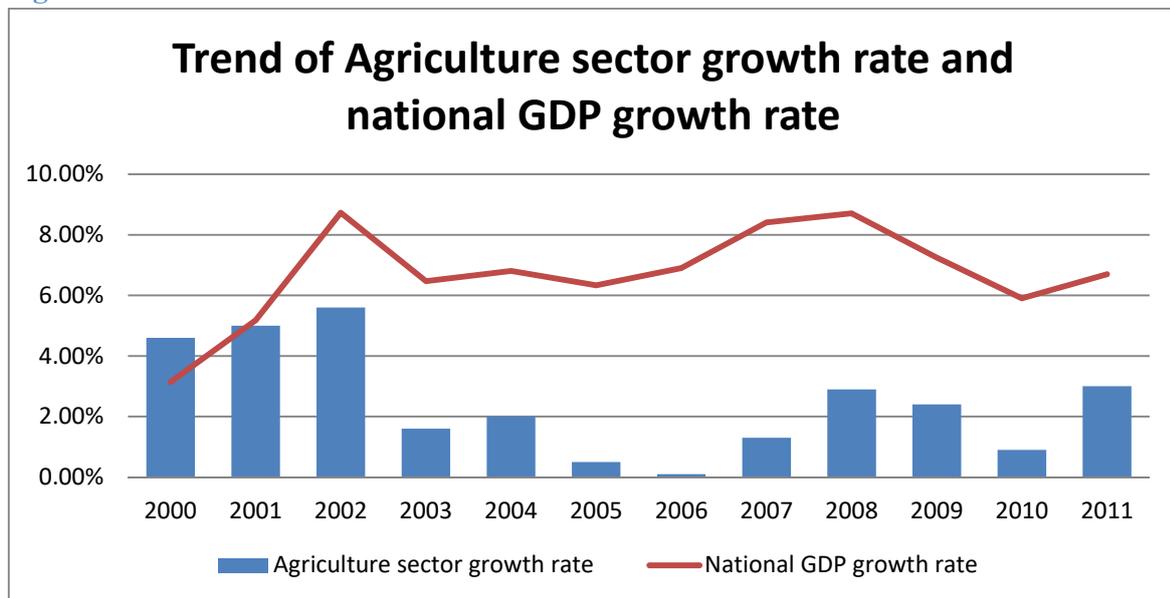
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List of Acronyms

1. Introduction

Uganda can gain substantially from her agricultural products if the country can adopt and implement value addition techniques and strategies. Indeed, Uganda's path to development and socioeconomic transformation partly rests on the performance of the agriculture sector. This is because the sector plays a formidable role in terms of food security, employment, local revenue, poverty alleviation, foreign exchange source and overall growth of the economy. In addition, agriculture has over the years determined the pace and direction of the overall economic growth for Uganda. As figure 1 below shows, where agriculture slumped, as it did in the period between 2003 and 2007 the overall GDP also reduced. The figure reaffirms that there is a close correlation between agricultural sector performance and overall economic performance. This implies that addressing binding constraints such as limited value addition, pests and diseases, limited use of high yielding varieties, etc in the agriculture sector has trickle down effects on the overall economy.

Figure 1:



Source: Background to the Budget MFPEd, MAAIF 2011 statistical Abstract & UBOS.

Furthermore, it is envisaged that if the sector grows at an average of 5.9 percent per year to 2015, the number of poor people will fall to 6.9 million people over the same period (NDP 2010/11 – 2014/15).

The key long – standing challenge of smallholder farming is low productivity coupled with limited value addition which limits profitability to agriculture producers and the overall economy. Weak value chains have failed to provide incentives to farmers to adapt to improved technologies and pursue more commercial agriculture. Smallholder farmers in particular need to be able to benefit from local-level value addition and be exposed to competition.

Value-addition simply refers to the additional value created at a particular stage of production or through image and marketing. Value addition in agriculture is a process of increasing the economic value and

consumer appeal of an agricultural commodity. It is an alternative production and marketing strategy that requires a better understanding of the rapidly changing agricultural food and food safety issues, consumer preferences and effective demand (www.agmrc.org/business/vaadefinition.html). Broadly value addition may mean a product changing its current place, time and form thus its set of characteristics that are more preferred in the market place. It should however, not be inferred that value addition, means only processing a raw material into some form of canned food because there are various ways of adding value to the agriculture commodities. For example mangoes and apples can be turned into juice, banana into crisps and flour and maize into flour and cornflakes.

Value addition in agricultural production can take different forms and levels ranging from the basic to more sophisticated level e.g. packaging, processing, cooling, drying, extracting or any other type of processes that differentiates the product from the original raw commodity.

For farmers, value-addition has a particular importance in that it offers a strategy for transforming an unprofitable enterprise into a profitable one. In fact, there are very few items that a Ugandan small farmers can produce and sell profitably at the first level (that is, on the open wholesale market). Therefore, a value-added strategy is critical to the long-term survival of most small farms in Uganda. It is on this basis that Uganda Vision 2040 recently launched by H.E the President, underscores the importance of value addition to agricultural products as a critical necessity in the transformation of the country from a peasant to a developed and prosperous nation within 30 years.

2. The Rationale for Value Addition

The bulk of traded (domestic and international) agricultural products from Uganda are in raw form implying that there is limited value addition. The small size of the sub-sector is partly attributed to the economic mismanagement that characterized Uganda in the 1970s under the military dictatorship that forced entrepreneurs to flee the country and the consequent collapse of various industrial establishments. However, upon restoration of peace in 1986, the sector gained minimum momentum as demonstrated by the few clusters of processing establishments in different parts of the country based on economic activity, availability of power and urban setting that provide ready markets for their products.

Past efforts at farm level to adding value to agricultural products were underpinned by the production for consumption mindset that emanated from the cultural upbringing of the many farmers and policy makers alike which could have been best achieved by strengthening physical access to food. Until there is a change in mindset from production -for-consumption to production-for marketing, the same difficulty may continue. Because production is not geared towards generating cash income, farmers especially the smallholders remain short of simple inputs, such as fertilizer and improved breeds, needed to increase production. The strategy for increasing food production has largely focused on expanding the areas of cultivation, including cultivating ecologically fragile and marginal lands. In most parts of the country especially in the Eastern region for example most farmers have cultivated the wetlands that drastically affecting the ecosystems. While changing the mindset, building competence becomes a relevant task because farmers do not have the competence that will enable them to integrate their selected production with adding value, marketing policy; nor do they have the capacity to form strong farmer organizations.

Often the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) does not plan with manufacturers, business professionals, experts in standards or policy institutions like other ministries like

Trade, Industry & Co-operatives that affect optimal production of the target crop. The type and quality of farmers' products do not fulfill market requirement in quality, quantity, standards, certification thus unable to penetrate national, regional and global markets. There is thus critical need to work jointly to bridge this gap between farmers, production and marketing.

Uganda's value addition sub sector is still in its infant stage albeit there is enormous potential for expansion and growth. Value addition in the country is at its minimum both in terms of scope and breadth. Coffee for instance, one of the country's leading export earner, recent statistics from the Uganda Coffee Development Authority (UCDA) show that Uganda exported 3.2 million bags of coffee (red beans each 60kg) earning the country US\$ 266million. However, experts say if just 20 per cent of the exported coffee had undergone the full value addition process of roasting and grinding, it would earn the country a mind boggling \$443 million.

Compared to other sectors e.g. iron processing or oil mining, value addition to agriculture products requires relatively less capital outlay to start up the process and therefore is affordable by most people. Value addition is therefore critical in the realization of Uganda's socio economic transformation prospects.

Value addition is also important as it results into creation of employment directly and indirectly in the secondary industries and the value chain.

3. Objectives

The overall objective of the Paper is to propose measures to scale up value addition **in the 10 strategic** agricultural products in order to increase market access and maximize the commercial value of the products. Specifically the paper highlights the current situation of the value addition sub-sector in the country and the challenges that hinder any meaningful development therein. It further considers past efforts in promoting value addition and attempts to propose policy recommendations for action.

4. Situational Analysis

Value addition in Uganda is still at minimum and mainly in cotton ginning, tea processing, coffee hauling, tobacco handling and processing, beverages, wheat products and the fast growing diary sub sector. Nevertheless these agro based Small and Medium Enterprises (SMEs) constitute 39 percent of Uganda's manufacturing sector. In the same vein, SMEs account for the highest levels of employment in the manufacturing sector mainly dominated by men (NDP 2010/11 – 2014/15). The general picture shows that value addition activities tend to be located within the production zones except for a few that have been dictated by the need for power and other related infrastructures like in the case of leather tanning. The slow progress in value addition set up could also be attributed to a number of challenges that are elaborated in section 6 of this paper. An analysis of existing literature reveals that a few processing enterprises have emerged and thus give a ray of hope that the country is embracing value addition as an important strategy for agriculture transformation. Examples of value added enterprises in the country include:

4.1 Fruit Processing

A few processing enterprises have emerged in the country since the late 1990s and the key players are Britania Allied (U) Ltd and Jakana (U) Ltd plus many other small processors. The challenges that still remain include: the inconsistent supply of raw material that forces the players to use imported concentrate, lack of cold storage facilities to store the excess production especially during the peak seasons and access to power and impassable roads in rural especially during the rainy seasons.

4.2 Fruit Drying

Some initiatives have been undertaken to dry fruits especially organic for the European Market. Currently there are about 10 small enterprises with a total production of less than 10 MT per month and notable ones include: St Jude Organic in Masaka, Flona Commodities and Kayunga Area Co-operative Society in Kayunga, BioUganda in Lutembe- Entebbe, Amfric Farms in Ntinda and Sulmafoods in Luwero. However, the majority of the above enterprises operate at very low processing capacities that can hardly attract big buyers for economic efficiency.

4.3 Grain Milling

There are a number of small Millers spread in many parts of the country unfortunately most of them are involved in only single level processing resulting into huge wastes and losses. The few mills that have upgraded to moderate processing (value addition) are Maganjo millers on Bombo road and East African Basic Foods which process and even pack flour of export quality. More work still needs to be done in terms of improving the production process and up grading of the machinery.

4.4 Meat Processing

Meat processing is still low although the industrial production index reveals increase by 84. The once major processing plants i.e Kampala Meat industries former Kampala Meat Parkers, Soroti Meat Parkers and Namalu in Nakapiripit are not undertaking any meat processing activities. However, there are 7 small scale meat processing plants in Kampala which include: Butcher shops: Top-cuts meat supermarket on Old Portbell Road; Quality-Cuts butchery on Ggaba Road; Fresh-cuts at Seguku former Imperial Gourmets on Entebbe Road; Sausage King in Nalukolongo industrial area; Rosa butchery in Kabalanga and Your Choice.

4.5 Milk Production and Processing

Milk production and processing have shown a positive growth over the last five years as shown in Tables 1 and 2. This is partly attributed to the increased investment in processing (value addition) that has led to a reduction in wastage and thus leading to increased supply by farmers.

The dairy sub-sector represents one of the few success stories where structural transformations have been witnessed as a result of value addition. For example, prior to the construction of milk plants, farmers used pour away milk due to lack of effective demand and storage. However, with setting up of milk collection centres, the farmers are now able to sell all their milk which can in turn be processed into value added products like cheese, yoghurt, long life milk just to mention but a few. The four major milk processors are; Sameer Agriculture & Livestock, Paramount Dairies, GBK Dairies and Jesa Farm Ltd. The dairy sub-sector is expected to witness further production with anticipated new entrants in the market like; Uganda Crane Creameries Co-operative Union now under construction in Mbarara. In addition a number of small milk processors have increased supply and guaranteed export of value added milk to regional markets of the EAC and DR Congo. However when compared with other members in the COMESA, Uganda still has excess processing capacity that needs to be utilized as the average operating capacity is at 36 per cent.

Table 1: Trends in Milk Production of milk in (Million liters)

Year	2006	2007	2008	2009	2010	2011
Cow milk (whole fresh)	1,063	1,148	1298	1344	1,377	1418

Source: MAAIF 2011 and UBOS 2012 statistical Abstracts

Table 2: Trends in milk Processing

Product	2003	2004	2005	2006	% change (2005-2006)
pasteurised milk(Litres)	17,317,558	20,093,094	21,033,567	22,024,012	4.7
UHT milk(Litres)	5,748,041	3,769,397	5,985,008	8,826,112	47.5
Yoghurt(Litres)	425,464	618,751	689,777	743,000	7.7
Ice cream(Litres)	246,482	686,933	688,567	690,102	0.2
Ghee(kg)	12,215	38,050	70,543	110,601	56.8
Cheese (Kg)	30,114	82,844	85,679	89,844	4.9
Cream(Litres)	7,961	10,433	55,879	74,797	33.9

Source: DDA and UBOS 2012 statistical Abstracts

4.6 Honey Production and Processing

Uganda has about 750,000 beehives producing 2,600MT of honey annually (UIA & UBOS 2008). In terms of districts, the Uganda Census of Agriculture (2008), showed that the districts with the highest production of honey were Yumbe (130MT), Nakapiripirit (88MT), Pader (81.3MT), Moroto (70.6MT), Amuru (57MT), Oyam (47.8MT), Nyadri (44MT), Nebbi (42.6MT), Apac (40.6MT) and Lira (40.5MT). Among the prominent players are; Bee Natural in Arua, Golden Bees in Bukoto, Gates Honey in Lira and a number of small associations/producers in Kitgum, Hoima, Bushenyi, Soroti and the Elgon region.

4.7 Leather Tanning

There are currently 8 operating tanneries in Uganda namely: Hoopoe tannery in Lugazi, Leather industries of Uganda (LIU) in Jinja, Skyfat tanneries in Jinja, Elgon Tanneries in Masaka, Novelty tanneries in Masaka, Loyal small scale in Jinja, Leather Works Ltd and Jumbo tannery in Busia. There are also 8 cottage tanneries that mostly do vegetable tanning distributed countrywide with production capacity of about 30,000 vegetable and dressed skins per year.

Hides and skins, the raw materials for leather, are by-products of the meat industry, and are derived from either urban or rural slaughters of cattle, sheep, goats and recently fish and crocodiles. According to Statistical Abstract 2008, Uganda has 11.4 million cattle, 12.5 million goats and, 3.4 million sheep and off-take rates in the range of 12-15% for cattle, and 20 -30% for sheep and goats, the potential raw material available in Uganda is about 1.4 million cattle hides and about 3.1 million goat and 0.68 million sheep skins.

About 90% of this volume is exported as wet blue with the balance of 10% being tanned locally as finished products by four (4) major companies. There are an estimated 800 slaughter places and 40 slaughter slabs and houses employing more than 6000 people.

The low off-take rates (13 per cent) further show that very few animals are available for slaughter implying also low availability of raw materials (hides & skins) hence low processing. In addition the only tannery (Leather Industry of Uganda) that is equipped to produce finished leather unfortunately has old machines that cannot produce good quality leather.

Table 3: Value addition in the leather sector in Uganda

Product	Level of VA attained (%)	Unit	Output level	Unit Price
Raw hides	0	Kg	100 mt	3,000=/kg
Wet blue	10	Kg	200,000 mt	\$1.10/sq ft
Crust	50	Sq ft		\$1.60 /sq ft
Finished leather	100	Sq ft	-	\$2.0/sq ft

Source: computed from NPA Statistics

4.8 Fish Processing

There are 14 companies processing fish in Uganda. Whereas the fish sub-sector shows an increase in value addition with much of the production being exported as processed fish fillets index of industrial production (processing) reveals reduction from the base year 2002 by 25%. This is partly attributed to unsustainable management of the lakes that has resulted into over fishing thus forcing some factories to close down.

4.9 Vegetable Oil Processing

Significant progress has been registered in vegetable oil processing. Among the key players are :Bidico Ltd, Mukwano, Rafiki, Mbale Soap works and Mukono industries among others. The gains from this improvement are broad and include: saving foreign exchange that had hitherto been used for importation, creation of employment and realization of foreign currencies from mainly the regional markets of South Sudan, Democratic Republic of Congo, Rwanda & Burundi. The programme has also improved the living standards of the communities involved in the production of these commodities mainly in Northern Uganda & Kalangala.

4.10 Past efforts on the policy and programme fronts in value addition

Over the years, Government has shown unrivaled commitment to promote value addition in the agriculture sector at different levels ranging from policy, institutional and planning level. Since Uganda is an agro-based economy, promoting value addition in the agriculture sector not only boosts export competitiveness but also accelerates the much needed socio economic transformation. On the other hand, the efforts of the private sector in promoting value addition cannot be disputed.

At policy level, Uganda Vision 2040 recently launched and in line with the NDP highlights objectives that are envisaged to transform the agriculture sector from subsistence to a competitive, profitable and sustainable sector. It identifies scaling up value addition as one of the interventions that should be adopted to promote profitability of the sector. Value addition in the agriculture sector is still in its infancy stages but promising because there exists enormous potential for growth.

Over the past decade, Government formulated the following policies, strategies and programmes that put emphasis on value addition as a strategy for employment and income creation in the agriculture sector:

- a) **The Agriculture Sector Development and Investment Strategy (DSIP)** identifies market access and limited value addition as one of the four major binding constraints to the performance of the sector.
- b) **The National Industrial Policy (February 2008)** is equally strong on issues of value addition. The government continued to reiterate the need for value addition especially in agro based products to increase the competitiveness of Uganda's products in both the local and global market. One of the objectives and principle focus of the policy is on agro processing. It asserts that industrialization should focus on food processing, leather and leather products, textiles and garments, sugar, dairy products and value addition in niche exports.
- c) **National Sugar Policy was launched in August 2010** to guide the sugar industry which includes sugar growing and processing as well as adding value to its by-products. The policy envisages that increased value addition on all locally available raw materials will increase competitiveness; create employment and consequently socio economic transformation. The policy reaffirms that the Government encourages value addition across the entire chain to agricultural commodities. This commitment is demonstrated at various entry points such as policy.
- d) **The National Textile Policy** which is aligned to the National Industrial Policy was formulated with an objective of enhancing performance in the textile subsector so as to increase value addition on locally available raw materials and export of manufactured goods. Cotton is one of Uganda's leading cash crops with massive potential to generate more foreign exchange which has been undermined by export of lint with very minimal value added estimated at a miserable value of 1 US \$. This results into loss of an estimated US\$ 8 – 10 which would be gained if conventional cotton is fully processed into garments. It is upon this background that the Government deemed it relevant to promote value addition and reap the associated economic benefits presented by the sub sector.
- e) **Incubation programmes by Uganda Industrial Research Institute**
UIRI conducts incubation programmes for SMEs in food processing. Over time SMEs involved in meat and juice processing have been assisted to develop their products through proper processing, packaging and labeling for average of 6 months to one year and when they graduate, they acquire own machinery and start their own establishments.
- f) **The Training and Common Facility Centre/Crane shoes**

The government, with the assistance of the donor community, in particular, the Austrian Authorities and United Nations Industrial Development Organisation (UNIDO) established a Training and Common Facility Centre (TCFC) in 1997. Training is conducted in all aspects of footwear and leather products manufacturing. The Centre also provides advisory services, extension services, as well as undertaking bulk purchasing of materials and components for small leather, footwear and leather producers. The Training & Common Facility Centre not only trains but also produces shoes and leather goods which are for sale in their shop.

g) Capacity building programmes

In order to respond to the human resource needs, government introduced degree training courses on food science and technology at a number of universities such as Makerere and Kyambogo and also in collaboration with private enterprises introduced internship training that exposes the student to practical aspects of value addition. A reasonable number of graduates are now available for employment in this field. In addition, farmers, extension service providers, traders and processors have received training under The Economic Partnership Agreement Related Trade and Private Sector Support (EPA TAPSS) Program, a European Union (EU) - funded program and under the Quality Infrastructure and Standards Programme (QUISP) project. A number of small and medium enterprises (SMEs) have been support to upgrade the processing infrastructure as well as acquiring standards certification from Uganda National Bureau of Standards (UNBS).

h) One Village One Product (OVOP) programmes under Ministry of Trade, Industry & Cooperatives

OVOP was introduced in Uganda in 2008 as an integrated community development approach with a vision to increase incomes and wealth for Ugandans through; value addition to local resources, human capital development and marketing of high value added products and services. The OVOP concept was designed as a community based approach through which local resources would be utilized to promote production, processing and marketing of both products and services. One OVOP's specific objective is to promote value addition to local materials and products of comparative advantage at community level for social economic transformation.

i) **National Export Strategy (NES) –**

NES 2008 -2012 contains a plan to guide specific priority sector to both expand and transfer to generate more revenue and emphasized investment in value addition and processing, improvement of productive capacities at home and avail the necessary business supportive infrastructure and climate.

4.11 Institutional level efforts

At institutional level, the Government has established a number of institutions and agencies to build capacity and promote value addition in the country. Notable among these is the Uganda Industrial Research Institute (UIRI). UIRI was established by the Act of parliament in 2002 to undertake applied industrial research for the development of optimal production processes for Uganda's industry.

Similarly the Uganda National Bureau of Standards (UNBS) promotes value addition by emphasizing standards and quality of products for both domestic and foreign market. It is inadequate to talk about Government efforts on value addition at institutional level without mentioning the Presidential Initiative for Banana Industrial Development (PIBID). The PIBID aims to kick start a state of the art banana processing enterprises in Uganda, producing value added matooke products, with competitive market strength both locally and globally.

5 Challenges to value addition

5.1 Collapse of Cooperatives

Agricultural cooperatives in Uganda date back to 1913 as a response to the disadvantageous terms of trade imposed on smallholder farmers by colonial administrators and middlemen who monopolized both domestic and export markets for coffee and cotton (Kabuga and Kitandwe 1995; Kyazze 2010; Mugisha et al. 2005; Flygare 2006). In such an economic context, forming a farmers' cooperative provided a mechanism for smallholders to collectively bargain for higher output prices, achieve higher margins through economies of scale, and engage in value-added activities.

Cooperatives provided skills to farmers, channels for marketing and a space for bargaining for public goods. Until the 1980s, cooperatives in Uganda had some success in counteracting the effects of unfavourable market positions for smallholder farmers. However, political instability, the liberalization of markets, and mismanagement, among other reasons, caused almost all cooperatives except a few to fail. This has led to farmers missing out on the platform on which they used to access information, technical skills and public goods that can be best accessed

collectively. In particular lack of technical skills necessary to add value to agricultural products is a challenge to the farmers. The current theoretic education system exacerbates the problem. Vocational and technical training is seen as the last alternative for those who fail to make it to University. This mind set misconception not only undermines the number of technically skilled people in value addition but also has an impact on the level of innovativeness and performance of these graduates since it's the academically feeble individuals that enrol for the programme.

5.2 Cost and access to finance

The cost and access finance has remained a big challenge to the growth of value addition in the agriculture sector. Agriculture is seen as too risky and most banks are reluctant to lend for agricultural activities especially start-ups firms and small producers. Whereas the number of banks and other financing institutions has greatly increased over the last two decades, this has not been followed by a fall in the interest rates anticipated to emanate from increased competition. The high interest rates ranging 18 – 24 per cent are very high for any investor and entrepreneur. Moreover, the same potential investors are also discouraged by a cumbersome exercise of availing collaterals requirements. Furthermore, the majority of the Banks in Uganda are international corporations with very high profit motives and the only Government owned bank available – Uganda Development Bank (UDB) lacks sufficient capitalization to revamp and support even a few cottage industries (National textile Policy). Even insurance firms are not keen to go into the agriculture sector, let alone the fact that the insurance industry in Uganda is also still in its infant stage (NDP 2010/11 – 2014/15). All these factors scare away local and foreign investors who would have wished to venture in the value addition.

5.3 Weak institutions and linkages

Uganda's institutions, especially farmers' and traders' associations and Government institutions, require substantial expansion and development to function effectively (IFIPRI, 2010). Farmers' associations can be important in disseminating market information, providing extension services and credit, and providing economies of scales both for input supply and the marketing of produce, enhancing the bargaining power of farmers in commodity markets. However, such associations are non-existent or very weak in many areas of rural Uganda. Traders' associations would help stabilize markets for farmers and provide a united voice for their demands, but they are virtually non-existent. Government institutions that have been formulated to regulate markets are weak and as a consequence generally lack resources. They have very limited abilities to regulate and assess the quality of the commodities to enforce market grades and standards. More significantly, contract enforcement is not guaranteed due to the weakness of Government legal institutions regulating rural commerce.

In addition there are very weak institutional linkages among public and private agencies with limited co-ordination. For examples department of agribusiness at MAAIF, National Agricultural Advisory Services (NAADS), PMA, Uganda Industrial Research Institute (UIRI) and Industry & technology at Ministry of Trade, Industry & Co-operatives derive their mandates and fall under different ministries. This results into: duplication of efforts; lack of coordination and synergy; increased budgetary requirements and yet if their activities were well coordinated, they would play a critical role in value addition.

5.4 Poor infrastructure

The infrastructure needed for value addition includes energy, transport, communications, and physical marketing facilities. Many Ugandan households lack altogether or are inadequately served by such facilities. For example, Ugandan power generation in recent years has not been meeting demand due both to sharp to lower seasonal rainfall. These power shortages have made agro-processing and value addition difficult. Despite significant increases in the number of Ugandans with cellular telephones, communication costs in the rural areas remain high, constraining the flow of market information from areas where staple foods are in demand to areas of supply. Rural market facilities in Uganda are mostly comprised of open air or semi-permanent buildings, which, together with a lack of storage and processing facilities, lead to high post-harvest losses for many agricultural commodities. Poor roads increase transportation costs for all commodities, resulting in lower returns to producers and higher prices for consumers. For example, transport costs constitute up to one-third of the wholesale price in Kampala for cassava produced in and shipped from Kapchorwa. Poor regional transport infrastructure has also hindered Uganda's trade in food with its neighbors and to the global market through the Kenyan port of Mombasa.

5.5 Limited capacity of equipment

A great number of Uganda SMEs lack capacity to process or add value in order to respond to market demand. Many of them have forced to cancel export orders or breach contract that negatively tarnish the country's image as unreliable supplier. Exporters of processed coffee and dried fruits to Europe have been some of the entrepreneurs that have been affected by the lack of capacity.

5.6 Seasonal nature of agricultural production

Most agricultural production in Uganda is seasonal in nature due to total reliance on natural weather and limited application of irrigation technologies. For an industrial setting such as agro-processing, it becomes uneconomic and unprofitable to pursue such an undertaking if one is to keep the machines/plants running at full capacity. Many entrepreneurs who would otherwise invest in agro processing shy away because of the nature of agricultural production which is seasonal and on a small scale not available all the year around.

5.7 Limited Sectoral linkages

Another challenge is that Uganda's industrial sector that is supposed to drive value addition from local resources mainly agro-based is highly dependent on imported raw materials. On the contrary agro products are often exported with no or minimal value addition or processing.

5.8 Extension services

Extension services in agriculture are generally lacking and where they do exist there are inadequate. NAADS has had its own challenges partly due to the design that the services be provided by private service providers that proved not be sustainable.

6 Proposed Policy Interventions

6.1 Revival and promotion of new forms of cooperatives that are activity based

Farmers operate more effectively in the market place if they are organized, and can aggregate demand for inputs and bulk produce for sale' (PMA 2005). Inherent in the cooperative model is the spirit of self-reliance, self -responsibility, value addition and participatory development through sustainability. Government support to value addition in the agriculture sector may need to be clustered targeting the 10 strategic products e.g. grain milling in east and northern Uganda, dairy in south western, coffee hulling in central etc. The clustering should be guided by the agriculture zoning strategy already agreed by stake holders.

It is therefore proposed that Government elevates the current farmer groups to the level of cooperatives as empowerment frameworks for bulk production, collection, buying, storage, value addition and selling; while responding to the broader income and food security challenges. These cooperatives should be allocated seed funding to enable them engage in bulk purchase and processing and be able to set up required facilities. In this regard there is need to explore prospects of re-establishing the Cooperative Bank that can be dedicated to addressing the need of the farmers.

To address the challenge of lack of facilities like cold chains, it is recommended that Government initiates the process of setting charcoal coolers and other cold chains/storage facilities in rural areas at co-operative or farmer group levels to stimulate value addition. Government may need to borrow the Kenyan experience in the horticultural sector in which satellite farms are facilitated with cold chain facilities, sorting and grading centres, inspection services that allow exporters to make orders and pack directly from the farms ready shipping or export

6.2 Improved access to agriculture finance

In seeking to address the challenge of the high cost of and limited access to agriculture finance that has continued to deter development of value chains in all the sub-sectors of fisheries, livestock and crop, there is need for full acknowledgement that neither the public nor the private sector can do it alone. It is important that the public and private sector stakeholders are brought together to fulfil the aims of providing agriculture finance to all categories of farmers: small, medium, large and commercial. There should however, be coordination and facilitation services offered to ensure that each partner's investment is complimentary and supportive along individual value chains as well as allowing each partner to draw reassurances that other elements are being supported in a similar way.

The realization that agriculture is peculiar in its requirements should be a basis for developing strong PPPs around input supply, commodity marketing, the introduction of commercial bank lending to farmers, training farmers in agri-business and risk management among others.

In addition the agriculture sector in Uganda is a peculiar in that the challenges it faces in terms of financing the activities are unique and in no way related to those in other sectors of the economy. For instance the sector is dominated by smallholder farmers who cannot read and write. Many of

the farmers only engage in the agriculture sector as a way of providing food security and not as a business. Given the many peculiar challenges there is need to design specific incentive and financing schemes that are not being availed by the conventional commercial banks i.e. an agricultural bank or scheme that is relevant to all categories of farmers i.e small, medium and large..

6.3 *Provision of Infrastructure*

Adequate infrastructure is essential for the promotion of value addition in the agriculture sector. Public investment is needed to expand access to roads, physical markets, storage facilities, telecommunication, and electricity; all areas critical to reducing farmers' transaction costs and physical losses. Uganda needs to enter an investment phase by prioritizing carefully selected infrastructure investments, especially in electricity and roads. In particular, investment in community access feeder roads should be prioritized since they have a larger impact on agricultural production and rural trade

than investments in high grade roads. Transport infrastructure is not only a Ugandan problem, but also a regional one, and must be addressed through collaboration between members of the East African Community to improve the regional transport infrastructure network. Similarly, the efforts of the Government at rural electrification should be expanded. With the provision of access to affordable electricity in rural communities, investment in staple food processing facilities will follow. Physical markets and storage facilities in Uganda also need to be improved to preserve the quality of produce for marketing and processing.

6.4 *Review of the existing liberalization and privatization policies*

Market efficiency was improved with the market liberalization reforms that took place in Uganda in the 1980s and 1990s. However, additional market efficiency gains require public sector support to deliver necessary public goods, foster institutional innovation and secure competitiveness. Although privatisation might have had good intentions of stimulating private sector participation, results show that it had weak regulation mechanism that did provide for continuity of the activities and assets acquired from the privatisation. e.g. Lira spinning turned into a warehouse at the expense of the cotton sector.

It is also true that nobody will invest in a business however good it is on paper if they risk losing their investment as a result of sudden changes in regulation or unpredictable government interference, because it does not protect their investment. Policies are needed to create a safe and predictable environment for investor and anyone else working along the value chain in Uganda. In addition independent, resilient and non-political institutional and governance structures are also necessary. These need to have relevant mandates and power, as well as proper checks and balances. The structures also need to be independent of both the government and vested interests, with clear lines of accountabilities.

6.5 *Speed up the rural electrification programme roll out*

Government should extend energy/power in rural areas to speed up and stimulate agro processing. In most production areas, the only available and possibly affordable value addition method

(preservation) is through sun drying which unfortunately does not suit all agro products like fresh fruits and milk. The recommendations made to Cabinet by PEC on infrastructure development should therefore be implemented as matter of urgency.

6.6 Set up a research and innovation fund

There is evidence to show that there is a close relationship between technological advancement and the level of research and innovation. Research enhances creativity and innovation which in results into value added products and services. Competitive research fund will stimulate innovation in various fields relevant to value addition. Government should take the lead in undertaking dedicated research to increase productivity and profitability and a study on how Egypt has been able to successfully done would be of great relevance especially Uganda's cotton sector.

6.7 Innovations and vocational skills training

The existing policy frameworks for value addition should be backed upon by strong foundation based on an education system that develops skills for value addition. The curriculum should therefore focus more on vocational training and government should set up apprenticeship centres like those found in India to stimulate innovation and creativity including value addition. Vocational training institutes should be equipped and linkages between research institutions of learning and enterprises enhanced through memorandum that provide for internship programmes.

6.8 Investment in market place development and storage facilities

Uganda is well located to take advantage of the regional markets through the export of value added products if facilities can be developed. Government should implement NRM Manifesto of establishing 17 border markets as this would provide storage and warehousing facilities at the border districts.

6.9 Integrate irrigation in the production system

Government should set up irrigation system as over reliance on rain-fed agriculture is no longer sustainable due to climate change being experienced. Farmers need predictability of the weather (rain) in order to plan their production activities well and minimise losses. Once implemented, inconsistencies in supply would be addressed.

6.10 Communication, knowledge and facilitation services

Non-financial services such as training, consultancy and advisory services, marketing assistance, technology development and transfer all play a crucial role in increasing the competences and efficiencies of small businesses. But these are seldom available to small agro-processors who work in remote physical locations, and do not know what kinds of services are available and therefore do not make demands of them. In particular the agro-processors lack access to state-of-the-art advisory and facilitation services that help farmers increase productivity sustainably and link to innovations.

6.11 Re-orienting extension services to provide financial education to farmers

The extension service can be used as a vehicle to provide education on value addition to farmers. Currently the service is only focused on education farmers on agronomic practices and efforts are being made to integrate extension and research. The time is now to re-orient the extension service to be business oriented so that it can be used to educate the various categories of farmers (small, medium, commercial and large scale) about the advantages of adding value to the agriculture products right from the farm level. The extension service has a role to play in ensuring that all categories of farmers including small scale (who are the majority) get education on the value chains that can be developed around the crops, fish and livestock agriculture that they are engaged in.

There is a case therefore for Uganda to learn from other countries that have been successful in adding value to agriculture products produced by of farmers of various categories and integrating finance education in their extension service delivery systems. Study visits by policy makers, planners and extension workers to countries like India to spot check why the success story and experience sharing are in this regard recommended. In addition in country training for practitioners in agriculture extension offered by experienced persons from those countries would add value and make a direct input in addressing the issue of value chain development and agriculture financing in the country.

6.11 Provision of incentives and deterrent measures

Government should provide special agriculture financing scheme that will lower the cost borrowing for agricultural production in recognition of the special importance the sector plays in the economy. Likewise, the export of unprocessed maize grains should be discouraged and where possible banned completely as it is a serious threat not only to value addition but to food security and livestock feeds sub-sector development

7 References

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Annex i

Milk Processing Capacity utilisation (Million litres) in COMESA and EAC

Country	Installed capacity	Utilised capacity	Excess capacity	Capacity Utilisation (%)
Kenya	2,000	0,500	1,500	25
Uganda	0,330	0,120	0,210	36
Tanzania	0,510	0,150	0,360	29
Ethiopia	0,130	0,020	0,110	15
Malawi	0,126	0,035	0,091	28
Zambia	0,347	0,113	0,234	33
Mauritius	0,050	0,049	0,001	98
Rwanda	0,023	0,013	0,010	57
Total	3,516	1,000	2,636	

Annex ii Index of Industrial Production (Processing), Annual (Calendar year), 2007 –2011 Base 2002=100

Description	Wt	2006	2007	2008	2009	2010	2011
FOOD PROCESSING	400	117.03	125.57	139.32	161.36	153.49	143.45
Meat Preparation & Processing	2	85.81	81.32	72.84	196.49	211.75	184.01
Fish Processing & Preservation	28	76.84	63.48	67.69	187.22	182.66	25.35
Edible Oils & Fats Production	42	206.5	238.62	205.16	207.84	216.17	260.84
Dairy Production (processing)	10	166.42	190.98	294.75	221.46	245.55	395.88
Grain Milling (processing)	9	353.76	318.91	312.33	168.67	209.32	425.03
Bakery Production	9	145.97	178.61	196.36	128.46	139.12	204.7
Sugar Processing	139	119.21	107.02	141.71	155.57	157.56	149.4
Coffee Processing	89	64.96	83.12	98.15	93.02	78.88	83.05
Tea Processing	68	101.49	132.79	128.21	104.38	141.45	110.43
Animal Feed Production	5	127.55	162.52	137.07	116.6	110.56	93.69
Other Food Processing	1	138.71	167.46	170.44	164.02	164.08	127.52
DRINKS AND TOBACCO	201	146.39	179.84	192.82	196.49	211.75	250.28
Beer Production	99	142.74	198.47	219.53	197.93	220.57	267.53
Soft Drinks & Bottled Water Production	69	208.57	240.24	247.96	289.5	301.6	346.73
Tobacco Manufacturing	33	28.66	0	0	0	0	0
TEXTILES, CLOTHING AND FOOT WEAR	43	135.27	163.26	141.65	187.22	182.66	188.44
Cotton Ginning	12	73.37	131.71	64.58	145.16	97.25	207.64
Textile & Garment Manufacturers	19	228.74	213.54	259.57	303	312.59	256.5
Leather & Footwear Production	11	44.77	112.59	26.32	36.07	56.11	50.03

Source: UBOS 2011

Annex iii Production of Meat in Metric Tonnes

Type of Meat	2006	2007	2008	2009	2010	2011
Cattle meat (Beef)	160,000	174,150	169,950	175,049	180,300	185,709
Pig meat (Pork)	18,000	20,250	18,540	19,096	16,669	20,259
Goat meat /Mutton	29,870	30,766	31,689	32,640	33,619	34,627

Source: MAAIF 2011 and UBOS 2012 statistical Abstracts

Annex iv Fish catch by calendar years (thousand tonnes)

Years	2008	2009	2010	2011
Total fish catch	364.8	366.6	385.9	421.1

3. Source: UBOS statistical Abstracts 2012

Annex v Formal Agricultural exports (quantity)

Commodity	Unit	2007	2008	2009	2010	2011
Traditional Exports						
Coffee	Tonnes	164,540	200,640	181,324	159,433	188,623
Cotton	Tonnes	16,228	7,950	17,812	11,891	25,587
Tea	Tonnes	44,015	46,022	44,446	54,555	55,650
Tobacco	Tonnes	48,160	26,996	29,212	32,373	28,402
Non-Traditional Exports						
Fish and Fish products	Tonnes	31,570	25,960	23,251	23,376	21,552
Animal/Veg Fats & Oils	Tonnes	47,474	37,694	44,950	51,633	70,791
Sugar & Sugar Confectionary	Tonnes	72,772	88,959	91,967	99,139	110,469
Beer	'000 Litres.	45,922	58,950	38,541	23,601	23,932
Maize	Tonnes	101,190	66,671	94,440	166,251	89,246
Cocoa beans	Tonnes	9,399	8,982	11,882	16,478	17,936
Roses and Cut flowers	Tonnes	5,243	5,349	3,910	3,727	3,436
Rice	Tonnes	24,739	25,426	38,289	33,323	38,254
Beans and other Legumes	Tonnes	22,965	37,252	38,191	24,417	35,920
Sesame seeds	Tonnes	6,556	14,154	12,107	12,065	14,841
Cattle hides	Tonnes	20,942	13,042	5,160	10,869	22,635
Vegetables	Tonnes	2,269	3,329	3,706	3,271	3,720
Vanilla	Tonnes	422	192	254	235	135
Live animals	'000	129	303	511	7	148
Soya beans	Tonnes	5,798	3,250	2,630	918	1,579
Fruits	Tonnes	1,993	3,114	3,290	2,904	3,682
Pepper	Tonnes	194	304	320	111	314
Bananas	Tonnes	1,151	396	695	471	761
Groundnuts	Tonnes	115	81	163	88	299

Source: UBOS statistical Abstracts 2012