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# Agro- industrialisation in Uganda

Current status,  
future prospects and  
possible solutions to  
pressing challenges



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Martin Fowler  
Jakob Rauschendorfer

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# Agro-industrialisation in Uganda: current status, future prospects and possible solutions to pressing challenges

Martin Fowler and Jakob Rauschendorfer<sup>1</sup>

*“Commercializing agriculture has the greatest potential for increasing household productivity and incomes, while addressing unemployment in the rural communities (...) the approach will nurture agro-based industries across the country, employing labour that will have been released from primary agriculture.”*

- Ministry of Finance, Planning and Economic Development, 2019.

## 1. Introduction

As with most countries in Sub-Saharan Africa, agriculture is Uganda’s key economic sector. Despite the sector accounting for only about one-quarter of the country’s overall economic output, agriculture provides livelihoods for the vast majority of the population and generates the raw inputs needed to fuel a small yet growing industrial sector dominated by agro-based manufacturing enterprises. Recognising the enormous potential of adding value to the country’s sizeable agricultural output as a means of boosting inclusive growth and creating productive employment across the country, the government is aggressively promoting agro-industrialisation.<sup>2</sup> For example, the upcoming National Development Plan III, Uganda’s five-year plan for economic development, identifies, “*natural resource-led industrialisation, especially agro-industrialisation*” as one of its priority programs. These efforts also enjoy support at the highest political level, with the President declaring that in order to “*eliminate hunger, famine and poverty (...) you must restructure traditional subsistence agriculture into modern commercialised agriculture*” (IFAD, 2005).

This paper seeks to provide a comprehensive review of agro-industrialisation in Uganda, with a focus on assessing key components of recent national plans to harness it for inclusive growth. Our analysis suggests that plans for agro-industrialisation in Uganda are at risk of being undermined by a worrying lack of policy co-ordination, an ineffective enabling environment, significant underutilisation of agro-processing units and a lack of agricultural statistics which hamper government and private sector planning of the sector.

The paper is organised as follows: In the next section we provide a snapshot of the role of agriculture in Uganda’s economy. Section three provides a brief overview of current government plans for agro-industrialisation, followed by a thorough assessment of the key component of these plans in section four. The paper ends with a number of conclusions and recommendations in section five.

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<sup>1</sup> Martin Fowler is Senior Agriculture Adviser, USAID Uganda. Jakob Rauschendorfer is Country Economist, the International Growth Centre Uganda. The opinions and views expressed herein are those of the authors and not necessarily those of USAID nor the International Growth Centre.

<sup>2</sup> The literature on this agro-industrialization is replete with different names for what is being promoted: “agri SMEs”, “agro SMEs”, “agribusiness”, “agro-processor”, “agriculture-related business”, “agro-manufacturing industries” and “agro-industries” are just some examples of terms used to describe the same group of enterprises. The term “agro-industries” (or “agro-industrial development”) will be used in this paper to connote the transformation of agricultural raw materials into higher-value products, regardless of the complexity of the process.

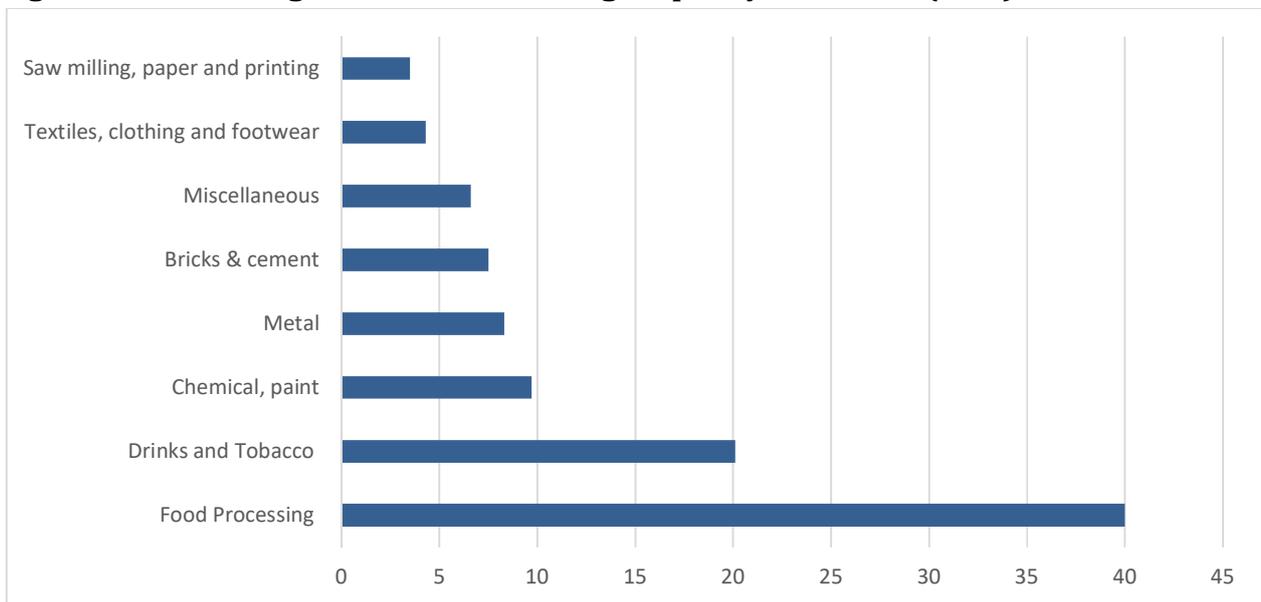
## 2. The place of agriculture in Uganda’s economy

The agricultural sector plays a central role in Uganda’s economy, generating some 24 per cent of the Gross Domestic Product (GDP) and accounting for more than half of the country’s export earnings (54%; World Bank, 2019). Almost 70 per cent of the working population is engaged in agriculture which also provides the first job for three-quarters of those aged between 15 and 24 years<sup>3</sup>. 78% of the Ugandan population lives in “rural” areas where farming is the predominant economic activity (UBoS, 2016). At the same time, agro-processing<sup>4</sup> is the backbone of the manufacturing sector accounting for approximately 60 per cent of its total output.

### 2.1. Agriculture’s contribution to Uganda’s industrial sector

A significant transformation that has been underway over the last 20 years, has been the reduction in the proportion of the GDP generated by the agricultural sector, from approximately 50% in 1995 to the current level of 24%. Most of this change can be accounted for by a rapid increase in the contribution made by the services sector. Manufacturing accounted for approximately 8% of GDP over the past decade, with no discernible trend. In spite of the relative decline in the importance of the agricultural sector in Uganda’s overall economic output, it will remain an important source of employment and livelihoods for many years to come. However, there are likely to be significant shifts in food and agriculture employment, away from the farm and towards more-commercialised and -productive activities.

**Figure 1: Share of Uganda’s manufacturing output by sub-sector (in %).**



Source: Uganda Bureau of Statistics (various)

<sup>3</sup> Approximately forty per cent of the working-age population is classified as being mainly engaged in “subsistence” agriculture, defined as producing mainly for home consumption and selling only a small proportion of their farm production (UBoS, 2016).

<sup>4</sup> Including food/drinks, leather processing, cotton ginning, textile and leather manufacture.

As is evident from Figure 1, the bulk of Uganda’s manufacturing output is accounted for by the processing of agricultural commodities: Food processing alone accounts for 40 per cent, with half of this amount being contributed by sugar, coffee and tea processing. The production of soft drinks and beer accounts for a further 17 per cent of manufacturing output.

In the five-years to 2017, manufacturing growth was buoyant, growing at an average annual rate of almost 6 per cent (UBoS, 2019). Much of this can be attributed to the rapid growth in the value of the output of the food processing sub-sector (with an average annual growth rate of 8%), with particularly strong growth being registered in meat, fish, dairy processing. Edible oils and bakery production also recorded rapid rates of growth. This is hardly surprising given the dietary transition that is underway in the country (*see below and Figure 3*). Over the same period, the average growth rates for the production of drinks (9%), cotton ginning (35%) and textiles (15%) were well above the agro-processing average. Clearly, both food as well as cash crops form the basis of Uganda’s productive agro-industrial sector and have the potential to be exploited even further.

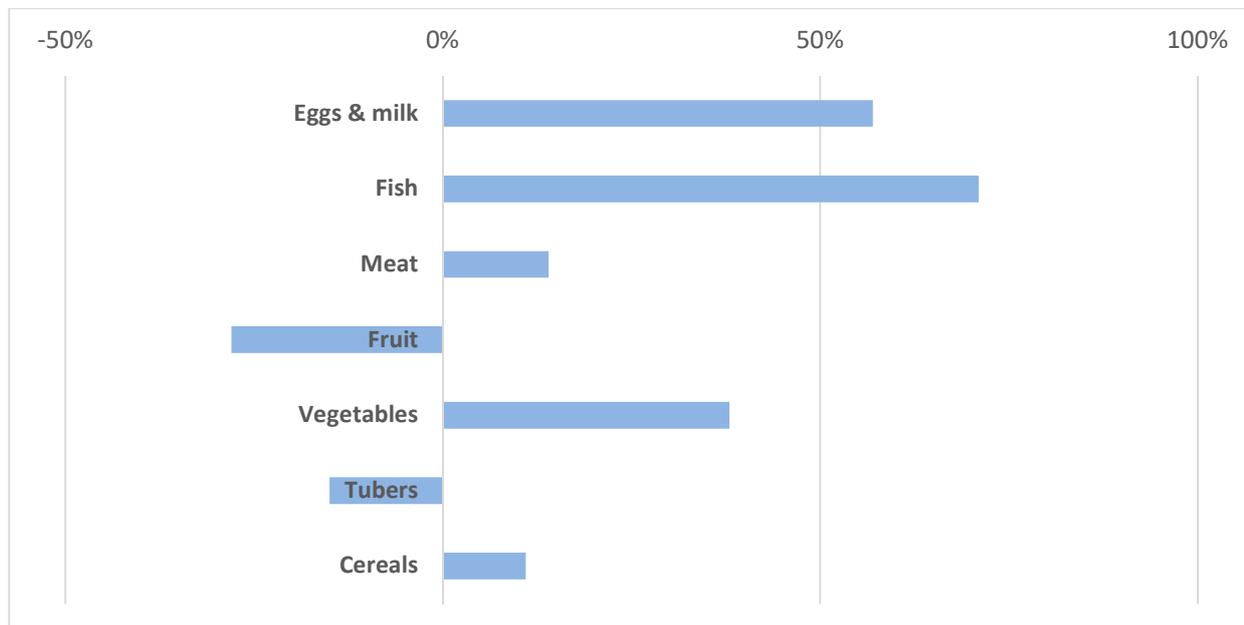
Arguably, the most promising prospects in terms of both inclusive and equitable economic growth and an expansion in job opportunities, lie in the development of small- and medium-scale agro-industrial firms which can supply the growing markets within Uganda and the region. Regional and global demands are enormous and the country is well integrated into regional trade (*see Section 2.2. below*). Domestically, demand is being driven by the high overall population growth rate (3.2% per annum) and rapid urbanisation (5.4% annual urban population growth).<sup>5</sup> Additionally, income growth in both the urban and rural areas is resulting in dietary shifts, giving rise to a greater demand for higher-value and more processed foods which are both more convenient to use and of higher quality. To illustrate, the demand for meat, fish, eggs and milk is rising rapidly across the country, while the demand for staple food grains, root crops and legumes is growing less quickly than income – see Figure 2 (World Bank, 2018[a]; Minot *et al*, 2015). These trends are likely to intensify in the future and should be studied carefully so as to inform the food processing/value-addition strategy<sup>6</sup> currently being promoted by national planners. However, it is important to recognise that this trend has been under way for some time.

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<sup>5</sup> Gollin *et al* (2016) point out that domestic agricultural production has to expand in order to meet the rapidly-growing urban demand for food, which can help foster innovation and quality improvements demanded by urban consumers. As producers learn to meet this demand it also gives rise to the growth of a wider variety of convenient, processed food products. In this way, growing urbanisation combined with increasing incomes is acting as a strong driver for the development of not only agricultural production and food processing, but also of packaging and marketing. Indeed, the processing, packaging and marketing sector has been an important driver of growth in a number of countries.

<sup>6</sup> As well as food retail planning, in light of the fact that some observers feel that “*Kampala has already begun to experience the ‘Supermarket Revolution’*” (World Bank, 2018[b]), although the fervour of the revolution has been questioned (Minot *et al*, 2015).

**Figure 2: Changes in per capita consumption of food groups between 2000 and 2011 (in %).**

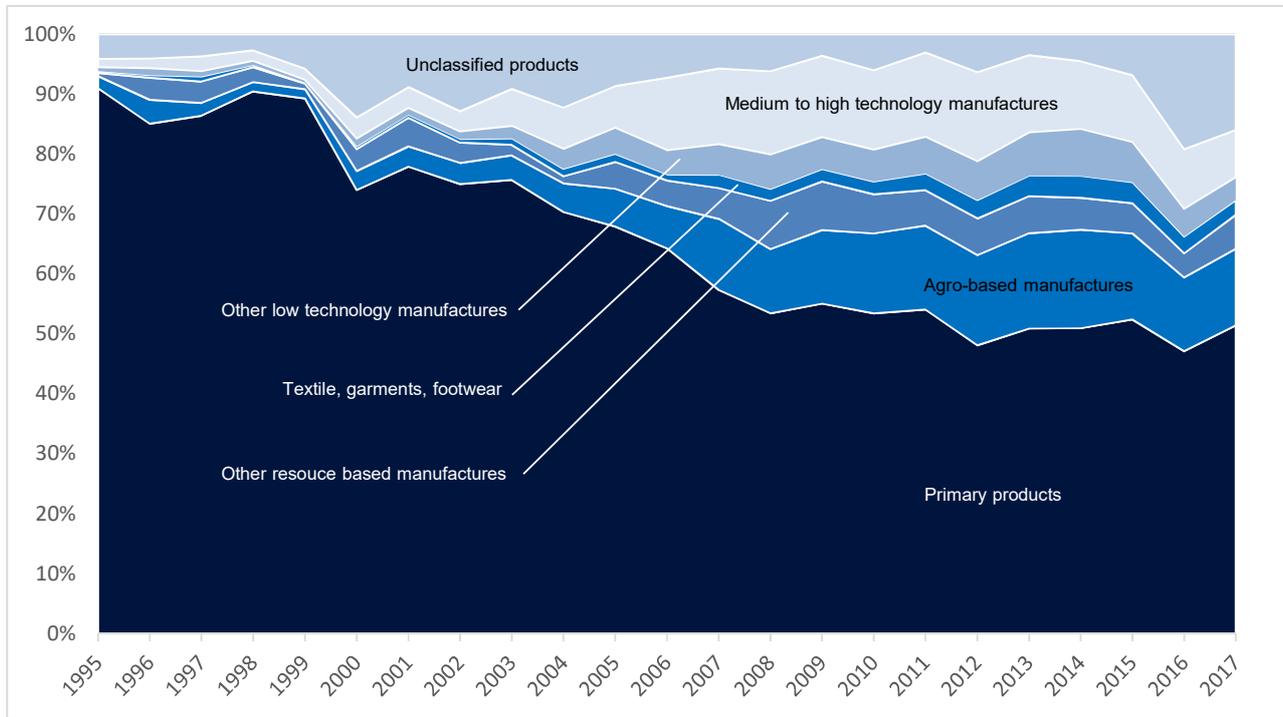


Source: Minot *et al*, 2015 (FAO food balance sheets).

## 2.2. Agriculture’s role in Uganda’s exports

As with most other developing countries, Uganda is keen to harness exports for higher economic growth. Trade integration increases market access for Ugandan firms allowing them to develop economies of scale and forcing them to upgrade the quality of their products through competing internationally. Key concerns for the country are: (i) the need to move away from exporting low-value raw commodities; (ii) to further diversify its export basket (in terms of both composition and destination markets); and (iii) to harness foreign demand for processed agricultural goods to help the employment transition in the sector, away from subsistence farming to more commercialised and productive activities.

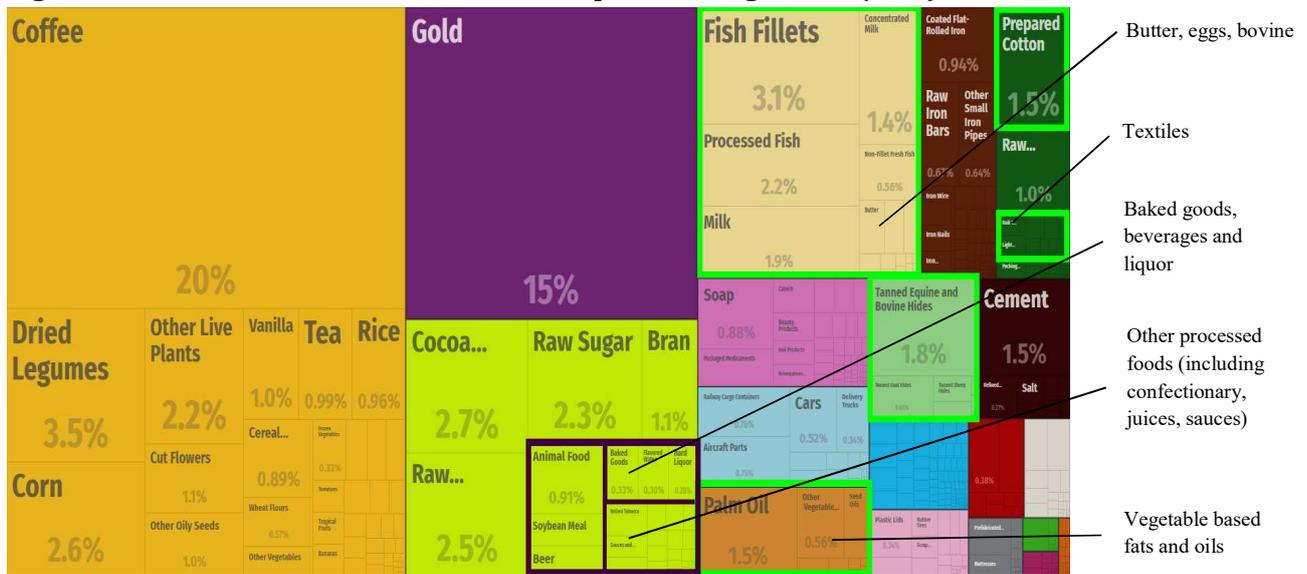
**Figure 3: Composition of Uganda’s formal merchandise exports over time: comparing primary and manufactured products (in %).**



Source: UNCTADStat database, 2019 (<https://unctadstat.unctad.org>). The Lall classification is from: Lall, S. (2000), “The Technological Structure and Performance of Developing Country Manufactured Exports 1985-1998”, QEH Working Paper series-QEHWPS44, University of Oxford (graph updated from Gollin *et al*, 2016).

As is evident from Figure 3, Ugandan exports are, for the most part, still dominated by primary products rather than processed goods. However, it is also clear that this dominance has been reduced gradually over time, such that primary products which accounted for some 90% of total merchandise exports in 1995 now account for close to 50%. In addition, not only has the trend been one of increased value addition (manufactured exports have risen) but, at the same time, there has been an increase in the number of distinct products making up the export basket. The current breakdown of the export mix is at least somewhat diversified and becoming less dominated by the so-called “traditional” exports of coffee, tea, tobacco and cotton (Figure 4). These accounted for 62% of agricultural exports between 2001 and 2011, compared with 82% during the last decade (Fowler, 2012).

**Figure 4: Breakdown of sources of formal export earnings, 2017 (in %).<sup>7</sup>**



Source: Hausmann et al., (2019). Agro-processed exports are highlighted with rectangles.

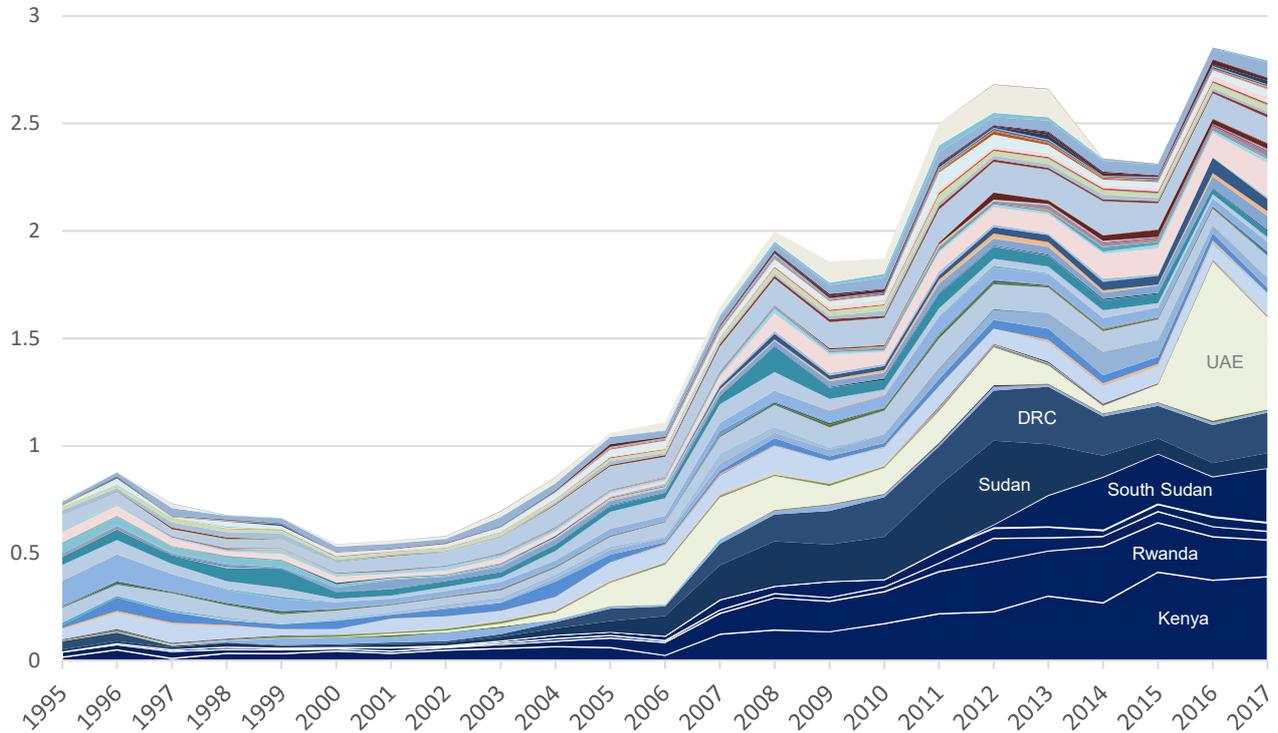
It is important to note that not only is there a rapidly-growing local market for agro-processed products, but that in addition the regional market is expanding rapidly with constant efforts to bring about more intra-regional and continental trade. For example, under Africa Continental Freed Trade Area (AfCFTA), a single market of 1.20 billion people, with a combined GDP of US\$ 3.00 trillion is in the process of being created (Deloitte, 2019) bearing the potential to have an enormous impact on intra-African trade through the reduction/abolition of both import duties and non-tariff barriers.<sup>8</sup>

From a policy standpoint it is important to illustrate the relevance of trade agreements to Uganda's success as an exporter. For example, consider Figure 5 and 6, documenting the importance of the East African Community (EAC) as a destination for Uganda's products in general and for dairy products as a specific example. The clear upward trend in exports of dairy products to the region following the formation of the EAC Customs Union (2005) lends strong support to the hypothesis that free-trade agreements matter for the country's success as an exporter of agro-processed goods.

<sup>7</sup> Exports were valued at US\$ 2.79 billion. It should be noted that this figure does not include exports of services, which accounted for approximately US\$ 1.64 billion in the same year, comprising mostly tourism (US\$ 940 million) and ICT (US\$ 510 million) (Hausmann *et al.*, 2017).

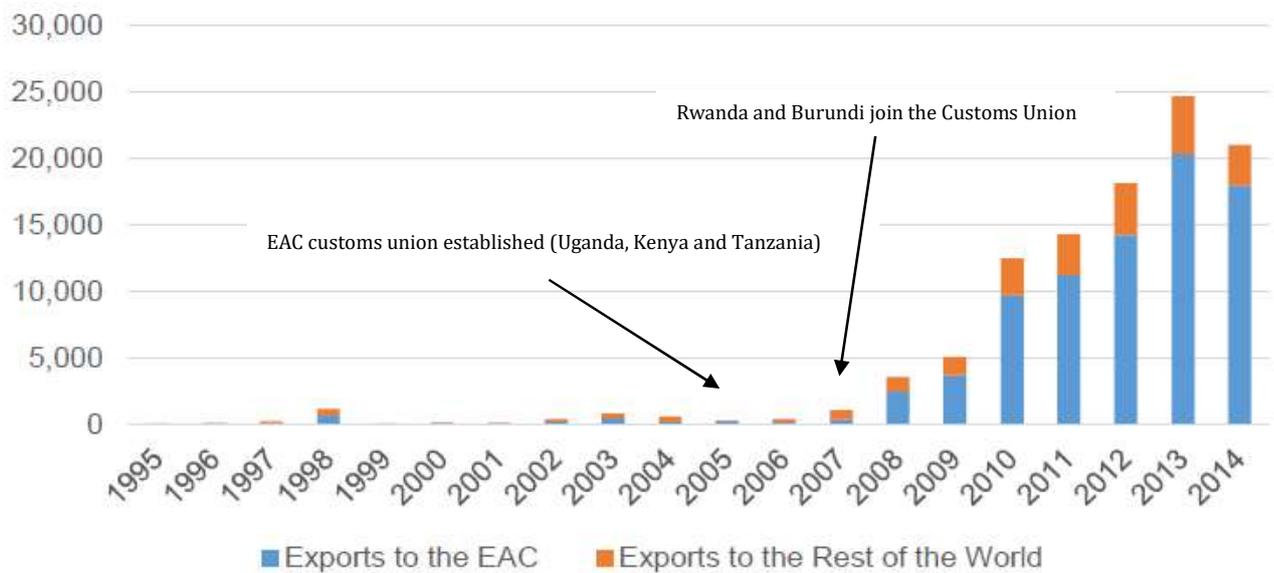
<sup>8</sup> The likely benefits accruing to Uganda arising from the creation of the AfCFTA are highlighted in a recent presentation (Mold, 2019), which shows that the country already earns a higher proportion of its export earnings from trade within the African continent (51%) than all of its neighbours: Tanzania (28%), Rwanda (31%) and Kenya (39%). At the same time, the composition of its exports to other African countries over the same time period, 2013-2017, has contained a higher proportion of manufactured goods (39%) than has been the case with regard to its trade with the rest of the world (26%), while the obverse has been the case in respect of Uganda's exports of food and agricultural raw materials.

**Figure 5: Since its formation the EAC has become Uganda’s most important export destination ...**



Source: Export volume by destination and year (in Billion USD). Authors illustration based on data from Hausmann, et al., 2019. In 2016 and 2017, 99% and 96% of all exports to the United Arab Emirates (UAE) were gold.

**Figure 6: ... and has served as a springboard to international markets for Uganda’s dairy products.**



Source: Karingi et al., 2016. Depicted are Uganda’s exports of milk, cream and milk products (excluding butter and cheese). Export volumes in USD '000.

### 3. National strategic plans for agro-industrialisation

A report prepared by the Economic Policy Research Centre in 2018 provided the basis for the recent change in focus of national planning towards agro-industrialisation (EPRC, 2018). The justification for the new direction is that given the dominance of agriculture as a source of livelihoods, agro-industrialisation offers an enormous opportunity for the country to embark on its long-term aspiration of transitioning into a modern industrial economy. Such an approach will, it is argued, help to promote inclusive and equitable growth, expand the already positive trade balance for agro-based industrial products, enable new food demands arising from rapid urbanisation to be met and lead to the upgrading of agricultural value-chains and the creation of better and more employment opportunities.

In line with this rationale, the overall goal of the forthcoming (2020/21-2024/25) National Development Plan III (NDP III) is “*Sustainable industrialization for inclusive growth, employment and wealth creation*”. One of the priority “programmes”<sup>9</sup> that form part of the plan is the promotion of value-addition through “natural resource-led industrialisation, especially agro-industrialisation” which is assumed to result in “increased household income and reduced vulnerabilities”. The focus of the programme is an “area-based commodity approach” based on a number of “strategic” commodities<sup>10</sup> that are grown in different defined agro-ecological zones of the country to create “backward and forward linkages in agro-processing” (NPA, 2019[c]).

The Ministry of Agriculture, Animal Industry & Fisheries (MAAIF) is in the process of designing a new Agriculture Sector Strategic Plan, (ASSP) for the period 2020/21-2024/25), which will provide more details on the priorities for the sector and the planned investments outlined in NDP III. Although it is only early in the planning stage, it is already clear that the new ASSP will be aligned with the overall goal of NDP III, seeking to support the development of a dynamic agro-industrial sector. The ASSP will focus on increasing the efficiency of key commodity value-chains, enforce local and international standards to ensure that the quality of agricultural produce is improved and strengthen links between farmers and sources of finance to support increased production and value addition. Strategies by line-ministries other than MAAIF, such as the (draft) National Industrial Development Policy (NIDP) by the Ministry of Trade, Industry and Co-operatives (MTIC), or the National Strategy for Private Sector Development prepared by the Ministry of Finance, Planning & Economic Development, identify agro-processing as one of the key sectors on which the NDP III should be focused.

Finally, in the recent budget speech, agro-industrialisation was highlighted as one of the key themes for the 2019/20 financial year under the overall objective or “*Industrialisation for job creation and shared prosperity*” (Republic of Uganda, 2019). Attention was drawn to the government support that had recently been provided to assist the development of the country’s agro-industrial base, including the processing of fruit in Teso/Luwero, dairy in Ankole, tea in Toro/Kigezi and sugarcane in the Acholi region (the Atiak factory). The speech focused on the need to raise the productivity and production of a greater number of focus “product value chains”.

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<sup>9</sup> There are 17 in total.

<sup>10</sup> They are detailed in Section 4.2.

## 4. Assessing the national plans for agro-industrialisation and the enabling environment

This section focusses on analysing the suitability of selected key components of Uganda's agro-industrialisation plans. We focus on eight key areas: the promotion of the so called "nucleus farm" model, the selection of value chains, capacity utilisation of agro-processors, barriers to exporting, the enabling environment, access to finance, the size of enterprises targeted by the plans and the availability of agricultural statistics.

### 4.1. Nucleus farms

A common feature of many of the recent strategic government plans for agro-industrialisation is the emphasis on the key role to be played by "nucleus farms" or "nucleus farmers"<sup>11</sup> in aggregating large volumes of raw materials for processing from the "outgrower" smallholders located nearby. The key rationale of this model is to make available large volumes of agricultural produce to ensure sufficient throughput in processing mills. Indeed, MAAIF recently stated that the new ASSP that is currently being drafted, will embrace the nucleus farmer model (MAAIF, 2019[a]), which was also promoted in the recent budget speech for the 2019/20 financial year and other key government strategies.

Nucleus farms/farmers are not new in Uganda. Indeed, in the case of rice production, the nucleus estate/smallholder outgrower (NE/SO) model seems to have developed organically in the east from the 1960s onwards when large-scale development of the crop got underway in the wetlands of the eastern Kyoga Plains. Smallholders were brought into the government irrigated rice schemes, which provided outgrowers with inputs and advisory services (Drew, 2010).

Similar operations have been in place for oilseeds in Teso, where Mukwano developed a 1,500 acre nucleus farm. Here, the output of the nucleus farm was supplemented by the harvest from a network of some 70,000 outgrowers. The company ran an embedded agricultural extension system whereby "lead" farmers received seed/herbicide/fertiliser kits to set up and run demonstration sites, while training was provided to farmers living in its vicinity. It also acted as the agricultural produce off-taker.

Other examples include efforts by the South African conglomerate AFGRI which has been operating such a scheme in Uganda focusing on maize since 2013 as well as the Kaweri coffee estate which was originally designed as a nucleus estate to be closely linked with outgrower smallholders (Roskamp *et al*, 2003). The model has also been adopted by most of Uganda's sugar companies. For example, in the case of Kinyara, outgrowers provided 42% of the total processing works' cane throughput between 1996 and 2008, with plans to further increase this share to 55 per cent.

Perhaps the best know example of this model in Uganda is the Kalangala Oil Palm scheme which has been operating for the past 15 years. It involves a large nucleus farm together with a number of smallholder outgrowers producing large volumes of oil palm which is processed in the mill adjacent to the farm on Kalangala Island, before being shipped to the mainland for further processing and bottling. This 'concept'

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<sup>11</sup> "Successful agro-processors will be engaged to serve as a nucleus, linked to farmers who sell their produce to the processor" (MoFPED, 2019).

has, from most perspectives, been highly successful and plans have been drawn up to replicate it in other areas – Buvuma, for example, where a 5,000ha nucleus estate with associated smallholder oil palm producers is to be established. The NE/SO model has also been used to promote smallholder development of cash crops in a number of countries, such as Papua New Guinea, Indonesia and Cote d’Ivoire.

In most instances, arrangements with outgrowers have usually been formalised through a Memorandum of Understanding, usually specifying fee payments by the outgrowers for the services provided by the nucleus. However, in a number of cases – both in Uganda and other countries – farmers have grown unsatisfied with arrangements in place, complaining that the services provided to them do not justify fee payments (Joughin, 2019). In a similar vein, a review of NE/SO schemes worldwide concluded that “(...) *although the advanced technology of these units is generally necessary for achieving export quality standards, with unpredictable supplies of crop, the factories are often underutilized, their high costs add to debt burdens, their managerial complexity excludes farmer participation and in some cases they put small-scale indigenous processing units out of business. Technical support services for agricultural extension and research (...) are surprisingly weak; as a result yields on these projects are unduly low*” (Ellman, 1989). A review undertaken by Drew (2015) comes to a similar conclusion: “(...) *with few exceptions, the outgrowers are characterized by issues of low productivity, under supply, adulteration/low quality and side selling*”.

Masaba (2018), on the other hand, notes that in Kalangala (Central Uganda) the experience has been one of a sustainable and mutually-beneficial commercial partnership between smallholder oil palm growers, the estate and the processor, with many of the functions now being taken over by farmer organisations, showing that the interests of the “nucleus” are not necessarily inconsistent with those of the smallholder outgrowers. It is important to note that this relationship has taken much effort over many years to bear fruit.

## **4.2. The selection of priority agricultural value-chains**

There appears to be a high degree of confusion and miss-co-ordination among government institutions over the crop, fish and livestock value chains on which the new agro-industrialisation strategy is to be based, having the potential to severely hamper a coordinated agro-industrialisation push.

For example, in the recently-drafted terms of reference for a study to design the 2020/21-2024/25 Agriculture Sector Strategic Plan, ASSP (MAAIF, 2019), nine focus commodity value-chains are prioritised to drive agro-industrialisation: coffee, tea, cotton, cassava, maize, vegetable oil, fish, dairy and beef.<sup>12</sup> At the same time, however, the National Planning Authority (NPA) is prioritising far more agricultural value-chains – in addition to the MAAIF selection. Specifically, the NPA list of “targeted industries” additionally includes: rice, millet, sorghum, barley, wheat, beans, peas, groundnuts, milk products (cheese, butter, casein, etc), goats, sheep, pigs, poultry, silk, cocoa, fruits and sugar: an additional 17 value-chains, giving a total of 26.

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<sup>12</sup> These nine were, in fact, identified by the EPRC in its 2018 study – although the scope of EPRC’s “oil palm” was widened by MAAIF to include all vegetable oils.

Indeed, agricultural enterprises targeted by the NPA would appear to be evolving, given that the list has been revised at least three times within the last few months [NPA, 2019(a); NPA 2019(b) and NPA 2019(c)]. For example, yams and bananas appear on some of NPA's lists of targeted value-chains and not on others, while beef (included in the ASSP list as well as previous NPA lists) seems to have been dropped in the latest selection circulated (NPA 2019(c)).

The 2019 Budget Speech also identifies a number of agricultural value-chains as a basis for its focus on agro-industrialisation; in addition to those already "established" (citrus, vegetable oil and dairy) new focus value-chains include cocoa, coffee, maize, beans, cassava, rice and cotton.

Another list of priority agricultural commodities (as inputs for the agro-processing industries to be promoted) is provided in the draft National Industrial Policy (Ministry of Trade, Industry & Cooperatives, 2019). It includes many that appear on other lists but omits cassava and includes fruit.

In addition, it is not clear how the nine commodities prioritised by MAAIF (and included in the EPRC list) were selected; the recent EPRC agro-industrialisation report simply states that they were chosen because they "meet the market requirements". No information is provided on any market analyses undertaken nor on why the others on the long list of fifteen value-chains which were highlighted by MAAIF (2017) for attention during the latter half of the decade, were excluded. Interestingly, one of those thus excluded is fruit and vegetables, which appears at odds with the efforts that have been made and which are continuing in order to make the Soroti fruit juice factory fully operational. Furthermore, data presented by EPRC (2018) shows that more than one-quarter of public expenditure on the agricultural commodities went to bananas – not much less than the proportion spent on vegetable oils (32%). Bananas feature in only one of the agencies' lists of priority value-chains.

Figure 7 shows which value chains are being prioritised in different official government strategies, revealing the extent of the lack of policy co-ordination between, and even within different institutions.

**Figure 7: Agricultural value-chains prioritised in different Ugandan government strategy documents.**

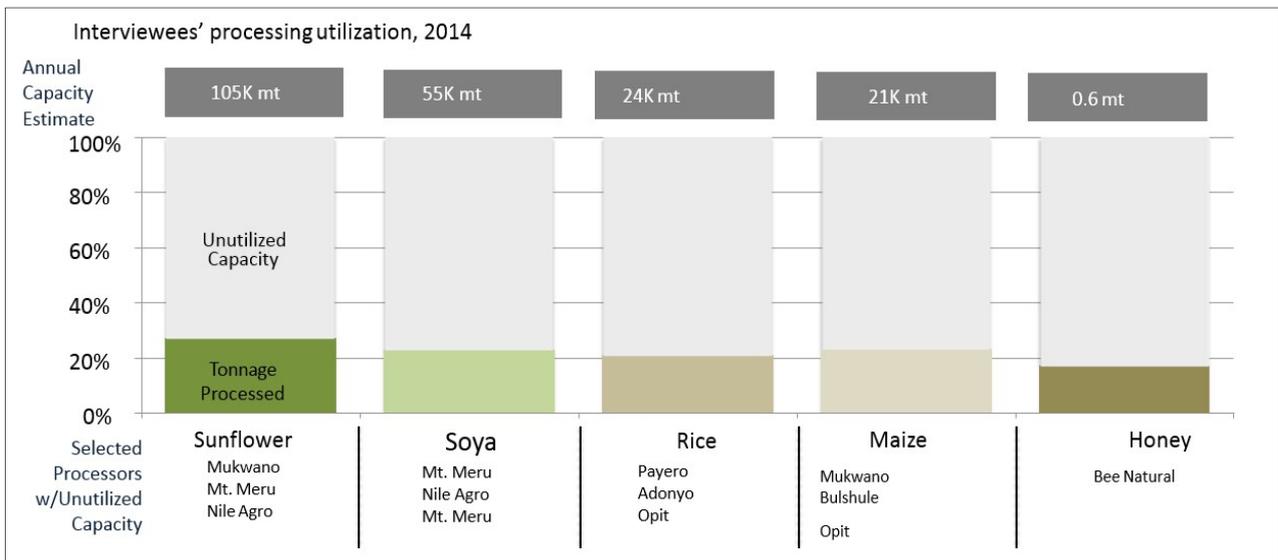
	MAAIF: ASSP	MAAIF: Submission for NDP III	EPRC (2018)	NPA (A)	NPA (B)	NPA (C)	MoFPED: Budget speech FY 19/20	MTIC: NIDP
Coffee	*	*	*	*	*	*	2	*
Tea	*	*	*	*	*	*		*
Cotton	*	*	*	*	*	*	2	*
Cassava	*	*	*	*	*	*	2	
Maize	*	*	*	*	*	*	2	*
Vegetable oil	*	*	*	*	*	*	1	*
Fish	*	*	*	*	*	*		*
Dairy	*	*	*	*	*	*	1	*
Beef	*	*	*	*	*	*		*
Citrus		*		*	*	*	1	
Beans				*	*		2	
Rice		*		*	*		2	
Cocoa		*		*	*	*	2	
Millet				*	*			
Sorghum		*		*	*	*		
Barley				*	*			
Wheat		*		*	*			
Peas				*	*			
Groundnuts				*	*			
Livestock		*		*	*	*		* (leather)
Silk		*		*	*			
Fruit		*		*	*			*
Sugar		*		*	*	*		
Yams					*			
Bananas				*		*		
Vegetables		*						

**Notes:** Key to abbreviations in order of appearance. **MAAIF:** Ministry of Agriculture, Animal Industry and Fisheries. **ASSP:** Agriculture Sector Strategic Plan. **NDP III:** National Development Plan III. **EPRC:** Economic Policy Research Centre. **NPA:** National Planning Authority. **MoFPED:** Ministry of Finance, Planning and Economic Development. **MTIC:** Ministry of Trade, Industry and Cooperatives. **NIDP:** National Industrial Development Policy. The EPRC report (Column 3) uses "vegetable oil" and "palm oil" interchangeably. In column 7 (MoFPED Budget Speech FY 19/20), 1 = already established; 2 = new focus. All cited government strategies can be found in the bibliography.

### 4.3. Capacity utilisation of agro-processors

A common feature of the agro-processing capacity in the country is that most of it is operating at levels well below installed capacity. A study by the World Bank revealed that, “(...) *most agroprocessing industries (cotton ginning, coffee processing, dairy processing, grain milling, oilseeds processing and animal feed milling) are operating at less than 50 per cent capacity*” (World Bank, 2012). The report attributed this to high transport and electricity costs. A survey of a sample of agro-processing establishments carried out two years later (Onward Resources International, 2016), confirmed this statement for the interviewed companies, which were operating at an average of 20-30% of installed capacity (Figure 8). A more recent review of the cotton sub-sector (Munu, 2019) showed that the two textile factories in the country are operating at less than two-thirds of their capacity and that the country’s ginneries<sup>13</sup> are running at less than 40% (EPRC, 2018). Indeed, the same report concluded that almost all agro-processing industries are “(...) *stunted and operating below installed capacities*” (*ibid.*).

**Figure 8: Capacity utilisation of selected oilseeds and key staples’ agro-industries, 2014 (%).**



Source: Onward Resources International (2016).

Worryingly, similar low rates of utilisation of installed capacity in a number of other agro-processing sub-sectors, are common (EPRC, 2018), including:

- Coffee: 40%;
- Fish: less than 30%;
- Dairy: the 9 largest are operating at 57% of their capacity, with the overall average utilisation of installed capacity being 66%;
- Beef<sup>14</sup>: less than 20%; and
- Cassava: 20-50%.

<sup>13</sup> Those that are operating – only 21 ginneries out of the national total of 39 are operating.

<sup>14</sup> One enterprise only, while the processing works of the other two are, “*grossly underutilized*” (EPRC, 2018).

Most assessments agree that the common factor resulting in the low rates of utilisation is the limited supply of raw materials. Other factors include the high cost and intermittent supply of electricity and a limited market for final products. At its base, the issue appears to be that production, in terms of both quantity and quality (and, therefore, productivity), needs to be increased significantly if the national agro-processing strategy is to be effective and the contribution of manufacturing to the economy is to be increased significantly. Too little attention appears to have been paid to this fundamental pre-requisite in almost all of the national discussions and documentation produced on the new agro-industrial development strategy.

#### 4.4. Barriers to increased export performance

Closely related to the problem of low capacity utilisation is the issue of securing and exploiting foreign market access for Uganda's agro-based products. While the lack of data on production does not allow estimates to be made of what proportion of agriculture-based manufacturing output is consumed domestically and how much is produced for export, agro-based products form the basis of the part of Uganda's exports that is not raw produce but of higher value. Two issues that would appear not to have been aired in any Government document concerned with the topic of agro-industrialisation are:

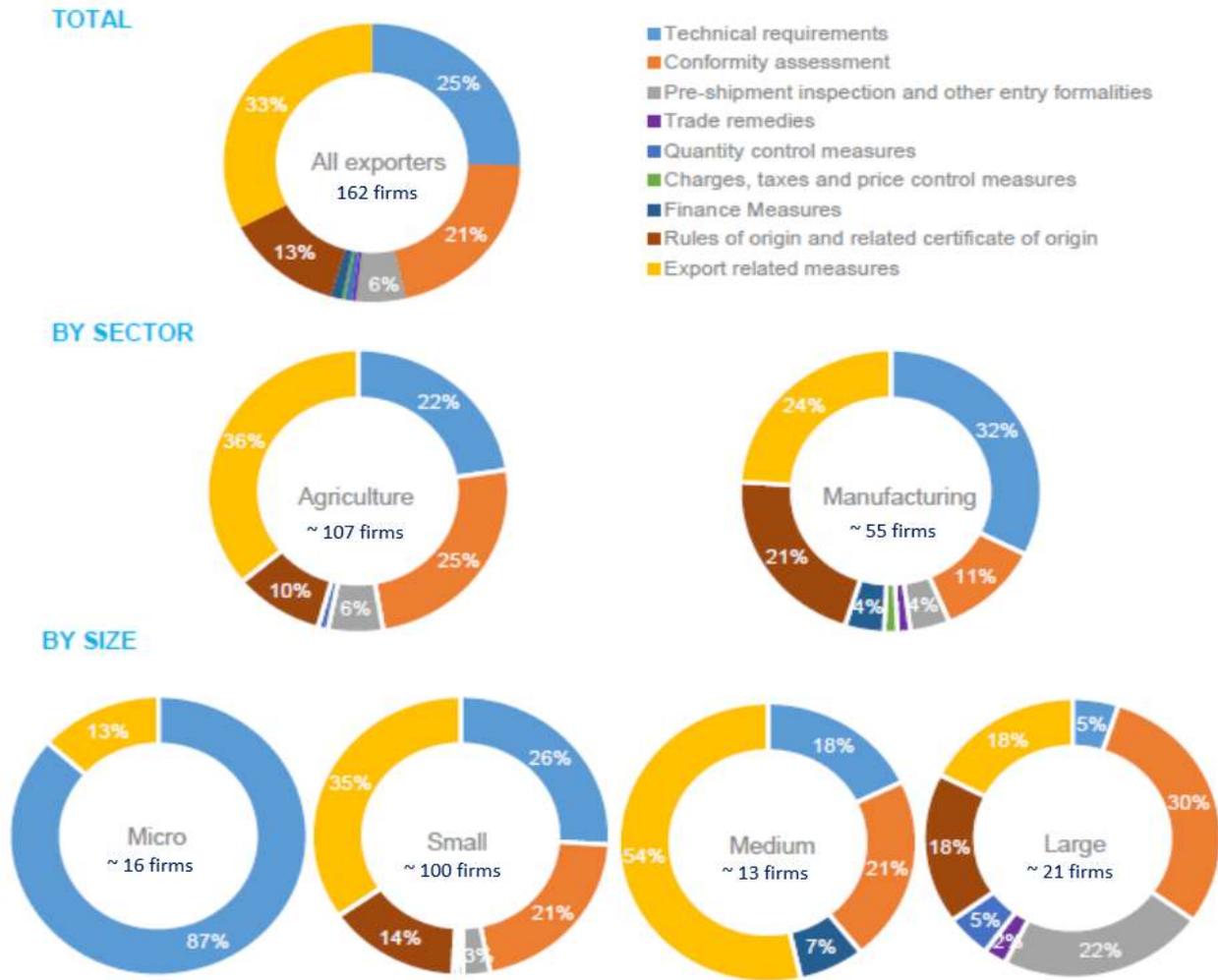
- (i) With almost all of Uganda's agriculture-based manufacturing exports being shipped duty-free to other EAC member states under the East African Community's Customs Union, maintaining the EAC (and the institution of the Common External Tariff) appears paramount to Uganda's continued export success in the region. However, recent developments such as deviations from the CET through tariff surges on a number of commodities in the 2019/20 financial year in Uganda (that have the potential to elicit retaliatory measures) or the fact that a review of the common tariff schedule has not been successful for the past two years, have the potential to undermine the functioning of the Customs Union.
- (ii) Ugandan exporters (and importers) face a host of Non-Tariff Measures (NTMs) that hamper improved export performance and the entry of new firms into export activities<sup>15</sup>. Crucially, many NTMs are both home-made and are more likely to apply to the exporters of agriculture-based goods due to the more stringent health and safety requirements for food exports, than to the exporters of other manufactured products. For example, a 2016 survey of Ugandan companies revealed that, *"(...) while 35% of exporters from the manufacturing sector are affected, the rate for agricultural exporters tops 42% (...). Exporters of coffee (62%) and processed foods (55%) are among the most affected"* (ITC, 2018).

Figure 9 illustrates this phenomenon. From a policy perspective it is crucial to note that the bulk of NTMs reported by the exporters of agriculture-related items are not imposed by trading partners, but by Ugandan institutions.

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<sup>15</sup> Non-Tariff Measures include obstacles to trading other than tariffs. They include levies on exports, overly-stringent rules of origin and quality standards, and the requirement that exports should be accompanied by voluminous documentation (licences, certificates of origin, etc).

**Figure 9: NTMs reported by Ugandan exporters.**



**Notes:** Adopted from ITC (2018:18) and based on in-person interviews with 162 Ugandan exporters who reported facing NTBs during a first-stage phone interview. 49 exporters are also importers. Firm sizes: < 10 employees: micro; 11-100 employees: small; 101-200 employees: medium companies; > 200 employees: large firms. The number of firms in sectors and sizes are added by the author and only indicative: The ITC does not report the actual distribution of the firms interviewed in person according to these characteristics, but provides this data only for the phone survey (cf. ITC 2018: 12, 17-19).

#### **4.5. The enabling environment for agro-industrialisation**

In order to stimulate increased private sector investment in agro-industrialisation, an enabling policy and regulatory environment is essential. The *Enabling the Business of Agriculture*, EBA, report (World Bank, 2017) compares eight common indicators relating to the legal and regulatory framework that have an impact on the enabling environment for agribusinesses. From these data, EBA generates individual rankings of the strengths and weaknesses of each country's agricultural enabling environment (62 countries were thus assessed in 2017). The indicators are seed, fertiliser, machinery, finance, markets, transport, water and ICT.

The data and indicators can then be compared across countries and trends over time highlighted to help policy makers and stakeholders identify barriers that impede the growth of agriculture and agribusinesses and develop strategies to reform the policy and legal environment. For the most part, Uganda's average scores in 2017 were close to the EBA averages, faring particularly well in the areas of transport, ICT and water, but below average in such areas as fertiliser and seed import/registration. The 2019 report, to be released shortly, will provide useful lessons for Uganda's policy makers on the progress made over the past two years in improving the different facets of the enabling environment for agribusiness and agro-industrialisation.

#### **4.6. Access to finance**

A shortage of credit and working capital to support the expansion of agro-industrial capacity, capacity utilisation, and the upgrading of the commodity value-chains has undoubtedly been a feature of Uganda's agro-industrial landscape for many years. Indeed, the bulk of the credit provided to the agricultural sector by the formal banking system has been for marketing, rather than for production and processing (Ntungire, 2018).

However, a number of sources of funding have recently become available to support agro-industrial ventures through the provision of medium- to long-term finance through such agencies as the *Agribusiness Initiative* (now "*aBI*"), *AgDevCo* and the *Yield Uganda Investment Fund*. (Other, 'traditional' funding sources such as the International Finance Cooperation remain important). The *Yield Fund*, for example, has recently committed a significant proportion of its portfolio of approximately Euro 20.00 million in the form of equity finance and business development services' grants to five enterprises involved in soyabean, egg and Moringa production and processing/storage infrastructure, and in coffee exporting, together with agricultural laboratory analysis (Pearl Capital Partners, 2019). In order to maximise the impact of the equity funds, each of the beneficiary enterprises is to receive business development services provided as a grant to improve their operational processes and governance practices, to enhance the socio-economic impact of the enterprises on participating smallholder farmers and to mitigate risk.

Through these and other financing mechanisms which are providing significant support to the sector, the observation that agro-industrialisation is constrained by a lack of capital, is now being addressed head-on.

#### 4.7. Size of the target enterprises

Many of the proposals for the development of agro-industrialisation at least appear to favour the development of large-scale enterprises. Given the base from which this strategy is being developed and the stated goal of transforming the national economy and ensuring that growth is more inclusive, efforts should also be directed to the promotion of both SMEs and larger agro-industries (World Bank, 2018b). Recent experiences of working with SMEs in Rwanda (McGill, 2019) has shown that small-scale enterprises can provide a major opportunity to effect change in the sector and spur broad-based economic growth inclusive of smallholder farmers. As Munu (2019) points out in respect of cotton, agro-processing need not be limited to large-scale manufacturing but also to encompass the development of small-scale processing, “(...) which is more inclusive (...)” Given that Uganda now has more than a million people entering the labour force each year (Mold, 2019)<sup>16</sup>, all investors – public and private – should be encouraged to develop their enterprises in such a way that job creation is maximised.

On the export side it is crucial to note that the bulk of Ugandan exports are accounted for by a small number of large enterprises. Employing transaction-level customs data for the year 2016 from the Uganda Revenue Authority and calculating the shares that individual companies contribute to Uganda’s overall export volume, we establish two key facts. First, the total number of individual exporters comprises only approximately 650 enterprises. Second, the hundred largest exporters (by volume over the course of a year) accounted for about 96% of Uganda’s total export volume with the top five companies contributing roughly 72%. Figure 10 shows the individual contributions of the hundred largest exporters to Uganda’s total export volume.

**Figure 10: Large companies drive Uganda’s success as an exporter.**



Source: Uganda Revenue Authority (2018): Transaction level customs data for 2016. The sample is limited to the 100 largest companies (by value of exports) over the course of 2016.

<sup>16</sup> Although a lower estimate (600,000) is provided in the Budget Speech (Republic of Uganda, 2019)

## 4.8. Statistics

There is a worrying lack of statistics on the agricultural sector on which planning (including monitoring) the development agro-industries can be based. This was highlighted as a common constraint by the diagnostic studies (21 of them) that were recently drawn up as part of the NDP III preparation process: *“(...) without meaningful statistics and their analysis, it will be impossible to precisely plan interventions and to monitor and evaluate progress and their impacts in the wider macro-economic context (...) the lack of quality statistics (...) led to a situation of ‘no consensus’ on what the most pressing development challenges are (...). Uganda lacks sectoral and spatial socio-economic data and as a result has a limited understanding of local economic development opportunities.”* (Anon, 2019). Clearly, effective sector policy making for the development of agro-industries processing is also hampered by this lack of ‘evidence’, as is the ability to gauge rates and patterns of progress (World Bank, 2018[b]).

## 5. Conclusions and recommendations

### 5.1. Conclusions

- Greater volumes of agricultural production for processing are the key to the expansion and development of the agro-industrial sector. At the same time, a significant unused processing capacity in a comprehensive range of value-chains remains to be exploited before additional capacity needs to be commissioned.
- There is no blueprint or blanket approach that can be followed in establishing agro-industries: investment decisions are location-, value chain- and time-specific.
- There is a fundamental lack of understanding of the operations of most of the commodity value-chains due to a dearth of agricultural statistics – information on gross margins, prices, production volumes, losses and local consumption are simply not there, or at least not publically available for interested parties. This significantly hampers the effective planning of the agro-industrial sector.
- Many components of an enabling environment for the agricultural sector, more broadly, have been or are being put in place. However, much remains to be done in order for it to be a fully-effective enabling environment, and close monitoring is required in order for policy to be adapted in line with changing circumstances.

## 5.2. Recommendations

- There is an urgent need for improved agricultural statistics, for both the public and private sector actors to better plan policies, interventions and investments in the field of agro-industrialisation and to be in a position to accurately monitor progress, impact and outcomes. Improved data would also have the potential to improve communication and co-ordination between public sector agencies with responsibility for the development of agro-industrialisation in the country as well as in the East African region.
- It is important that the large and persistent agricultural productivity gaps in Uganda are addressed as a matter of concern – current yields are only 40% of those currently being realised at agricultural research stations (World Bank, 2012). Without such a profound and sustained increase in both the productivity of the sector and the quality of farm produce, any moves towards increased agro-industrialisation will continue to be undermined.
- There is a pressing need to rationalise<sup>17</sup> and prioritise those agriculture commodity value-chains that are to form the focus of the agro-industrialisation strategy under NDP III, as well as agreeing on the investment priorities along each of the value-chains<sup>18</sup>. An exercise should urgently be undertaken to appraise each of them through the ‘lenses’ of a number of objective criteria, including: (i) their employment-creation potential; (ii) their projected foreign exchange earnings; (iii) past experience (for example, are there lessons to be learnt from the failure of the cotton manufacturing industry to develop beyond its promising beginnings some 50 years ago); (iv) regional balance/spatial impact<sup>19,20</sup>. In this way, value-chains will be identified that can provide maximum benefits to the economy as a whole (those having the highest economic internal rates of return). This exercise will also enable the public sector more effectively to guide, promote and co-ordinate the agro-industrial investment efforts of the private sector.
- It is important that the appropriate role for GoU in fostering the growth of agro-industries is clearly defined – confusion dominates this discussion at the moment, with contradictory proposals being put forward by key commentators, politicians and think-tanks alike. Clearly, the GoU has an important role to play in strengthening the enabling environment to leverage private sector investments, and in closely monitoring progress. Much work has already been done in terms of improving the physical infrastructure: expanding the road network and improving the efficiency of border post procedures, for example. However, much work still remains, particularly

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<sup>17</sup> Nine may be too many to start with, for example. A prioritised list would enable national decision-makers to take informed decisions on where efforts and resources should be focused from the outset.

<sup>18</sup> Such as, in the case of the coffee value-chain for example, hulling, or roasting, or transformation into instant coffee.

<sup>19</sup> As a recent study noted, “(...) the high concentration (*of agro-industrial enterprises*) in one region and dominance of small scale agro-manufacturing industries raises issues of capacity to foster inclusive agro industry development in the country” (EPRC, 2018). In a similar vein, Gollin (2016) commented that the spatial distribution of much of the growth in the services and manufacturing sectors has been in the Lake Victoria “crescent”, in general, and in the capital city of Kampala, in particular.

<sup>20</sup> A simple yet effective methodology along these lines was adopted by the authors of MAAIF’s second Agriculture Sector: Development Strategy and Investment Plan (MAAIF, 2010; Annex 2) in drawing up a list of priority commodities on which development efforts in the sector were henceforth to be focused.

in terms of: (i) expanding the electricity grid and improving the efficiency in the provision of power; (ii) ensuring improved land tenure security; (iii) ensuring effective regulation of the quality of key agricultural inputs such as seed, fertilisers, veterinary drugs and agro-chemicals, and working with the private sector to develop an appropriate and effective regulatory environment for food safety and agricultural marketing; and (iv) increasing the effectiveness and efficiency of the agricultural extension system and in encouraging the creation and development of farmer organisations so that smallholder farmers are in a better position to participate effectively in the supply chains of the priority crop and livestock enterprises and linking with formal sector aggregators.

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