

FOSTERING A SUSTAINABLE AGRO-INDUSTRIALISATION AGENDA IN UGANDA

By
Economic Policy Research Centre (EPRC)

AUGUST 2018

Presented at the National Budget
Conference and Economic Growth Forum FY 2019/2020
Kampala Serena Hotel, September 13, 2018

Fostering a Sustainable Agro-Industrialisation Agenda in Uganda

Executive Summary

The report presents a case for activating transformative agro-industrialisation (AGI) in the context of Uganda's proposed national industrial policy. The report outlines the urgent need for government to shift the country's economic centre of gravity from low value agriculture to value-added manufacturing. This, the report contends, will be achieved by focusing on a more manageable menu of nine (9) agro-industrial game-changers, namely, coffee, cotton, tea, cassava, maize, vegetable oil, fisheries, dairy and beef, instead of the 15 broad "priorities" outlined in the Agricultural Sector Strategic Plan (ASSP) 2015/16-2020/21. The report proposes the narrower priorities as critical game-changers because they have the potential to transform the Ugandan economy to high value-added manufacturing activities. The benefits of a transformed agricultural sector linked to industry are immense. They include, but are not limited to, the following:

- a) Adoption of better production technologies (such as irrigation, fertilisers, improved seed, mechanisation and the use of drones to monitor crop pests and diseases); these technologies will definitely improve agricultural productivity ;*
- b) Boosting the supply and reliability of agricultural raw materials for the agro-manufacturing industries;*
- c) Creating off-farm employment opportunities for citizens;*
- d) Expanding the export and the domestic revenue base of the country; and*
- e) Creating the necessary preconditions for Uganda's structural transformation into a high value-added manufacturing economy.*

Why Uganda needs to agro-industrialise

Uganda's vision is to industrialise and transform the structure of the economy by 2040. Given the dominance of agriculture as a source of livelihood, AGI offers a great opportunity for Uganda to embark on its long-term aspiration of transitioning into a modern industrial economy. First, AGI presents an avenue for promoting inclusive and equitable growth especially in the rural areas as well as closing regional income disparities. Second, Uganda has a positive trade balance in agro-industrial products that stood at USD420 million in 2016. Third, government policy underscores the need for adding value to agricultural raw materials in order to promote export expansion of high value products. Fourth, more efforts are required to leverage on the domestic market for selected agro-industrial products through import replacement (e.g. cotton, vegetable oil, footwear and textiles, among others). Indeed, Uganda should not miss out on the opportunities that come with growing urbanisation (at an annualised growth rate of 5.4 percent) and the growing middle class that demands higher value added agro-industrial products. Fifth, Uganda should agro-industrialise to address

the high post-harvest losses which range between 20 to 40 percent across crops.

Additionally, the backward and forward linkages between agriculture and agro-industries will necessitate that Uganda sustainably transforms agro-value chains to ensure sufficient supply for domestic industries to undertake transformative sustainable manufacturing while creating employment for its citizens.

Agro-industry outlook

The Report appreciates there are several government initiatives supportive of the AGI agenda. Some of these initiatives include:

- a) Support to the production base through input subsidies (for example, coffee seedlings under the National Agricultural Advisory Services (NAADS)/Operation Wealth Creation (OWC) program, palm oil production, cotton);
- b) Risk mitigation measures (such as increased public investment in irrigation and piloting of Uganda

- c) agricultural insurance scheme);
- c) Support toward value addition such as:
 - o BIDCO Uganda Limited (for oil palm);
 - o The Presidential Initiative on Banana Industrial Development (PIBID);
 - o The Soroti Fruit Factory;
 - o Nakaseke Tomato processing plant;
 - o Kisoro Potato Processing Industries (KPPIL); and
 - o Egypt-Uganda Food Security Company Limited (for beef processing).
- d) Agricultural credit facility under Bank of Uganda; and
- e) Financial support to research and development (R&D) through national research institutions.

Notwithstanding these initiatives, Uganda's AGI agenda has several shortfalls. The most pressing ones are as follows:

Broad and non-transformative priorities: Uganda's AGI agenda lacks prioritisation within the many "priority" commodities. Most of the initiatives seem to be *ad hoc*, are poorly coordinated, unsustainable and have so far proved non-transformative.

Specifically, the non-transformative and unsustainable linkages are observed between raw material production, processing and manufacturing. They are also observed at the level of limited market penetration (e.g. Egypt-Uganda Food Security Company Limited). Countries such as Chile and Malaysia that have registered success in agro-industries adopted specific models that foster business linkages. They focused on fewer commodities and used state protection of the selected agro-industries especially at the infancy stage to promote transformative agro-manufacturing industrialisation.

Weak and uncoordinated institutions: Agro-industry cuts across the mandates of several ministries, departments and agencies (MDAs). This, by implication, calls for effective and efficient coordination among the different MDAs. Indeed, agriculture, industry and trade sectors emerge as the key leading sectors in driving the AGI agenda. However, there is a broader spectrum of MDAs involved. The following is an indicative list of institutions that must work in a coordinated manner for Uganda to realise its AGI aspirations:

- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF);
- Ministry of Trade, Industry and Cooperatives (MTIC);
- Ministry of Finance, Planning and Economic

- Development (MoFPED);
- Ministry of Education and Sports (in charge of skilling human capital);
- Ministry of Science and Technology (in charge of new technologies and innovations);
- Ministry of Local Government (since agro-industries are located in particular local government jurisdictions);
- Ministry of Lands, Housing and Urban Development and in particular, the Land Registry;
- Office of the President (which apparently coordinates certain interventions – such as PIBID; and
- Office of the Prime Minister (OPM), which gives overall coordination of Government's business.

For agro-industrialisation to work, there is need for strong institutions to organise the value chain players but also ensure that the services and resources are delivered to facilitate the AGI agenda. While government has created an enabling environment for the AGI agenda to thrive, the following obstacles continue to constrain AGI:

- a) A cobweb of policies and Acts (over 25 policies and over 20 Acts) exists under MAAIF and MTIC, directly impacting AGI;
- b) Government has responded to institutional failures by creating parallel institutions. The many institutions, policies and laws are poorly coordinated (both vertically and horizontally). This increases the risk of wastage of public funds as well as spreading resources too thinly to realise impact;
- c) Inadequate and poorly sequenced financing;
- d) Limited policy evaluation that is manifested in the low levels of monitoring and evaluation that in turn impede learning for improvement; and
- e) The multiplicity of weakly coordinated and inadequately developed support services, including, but not limited to patient capital (or finance), business infrastructure, land, insurance, and Research and Development (R&D).

Fragmented small-scale farmers: Evidence suggests that the agricultural production outlook for Uganda is weakly supported by services (such as extension, R&D, innovations) to sustainably back the agro-manufacturing industries. This could be explained by the dominance of small scale subsistence farmers (65 percent) with low technology adoption. Only 4 percent of all Uganda's farmers use a package of production enhancing technologies (a combination of fertilisers, improved seeds) and supportive extension services. The peasant

farmers hold fragmented land parcels and only 13 percent belong to production groups. The farmers also have limited risk mitigation measures such as agriculture insurance and irrigation (less than 1 percent use irrigation), among others. As a result, production and productivity are low and volatile; and quite often not right quality and varieties. The production of the identified *nine* commodities needs to increase between 1.4 fold (for fisheries), and four fold for maize for the country to achieve the 2020 production targets set under ASSP.

Weak and unsustainable production base: Agro-manufacturing industries, on the other hand, are constrained at two fronts – a weak production base to sustainably supply raw materials, and an unfavourable business operating environment (such as high cost of electricity, cost of capital, and corruption). These have inhibited the growth of Agro-manufacturing industries. As such the industries have remained small scale, operating below installed capacity. For example, cotton ginneries are operating at about 20 percent with almost one product – cotton lint. This impacts the extent to which Uganda is integrated in the global cotton value chains; as well as taking advantage of the domestic market opportunities. In addition, these industries are characterised by low innovation and R&D capabilities which impact their product space, resulting in low value products. The Report also notes the limited linkages of the upstream, midstream and downstream activities.

Unfavourable business operating environment: The business operating environment presents another layer of challenges to manufacturing industries. The challenges include high electricity costs, high corporation taxes, and limited access to credit (with only 6.3 percent having a line of credit compared to 44.3 percent for Kenya). They also include huge infrastructure deficits – such as the Standard Gauge Railway (SGR) for transporting bulky agricultural raw materials, and limited storage infrastructure. Unlike Kenya whose Mombasa-Nairobi SGR is complete, Uganda’s leg of the “Northern Corridor” is far from completion, thereby complicating the business environment. In the absence of cheap transport (such as canals and railways), Uganda’s agro-industries are left to rely on the substantially more expensive road transport.

Limitations in taking advantage of the domestic and external market space: Regarding markets, the government has put in place an enabling environment to support and promote market access for agro-industrial products. However,

this is yet to deliver the expected results. Evidence suggests that the major destinations for Uganda’s agro-industrial products for the eight commodities (excluding cassava) were within the EAC region (48.9 percent) followed by EU countries (39.9 percent), Asia (4.2 percent) and rest of Africa (5.6 percent) in 2015. The share of Uganda’s agro-industrial products in the global market was only 0.17 percent competing with countries that are highly integrated in the global value chains. Another observation from these statistics is that Uganda’s exports are concentrated in low value agro-industrial products rather than the high value exports.

To access external markets for its goods, Uganda has signed several trade agreements at multilateral (WTO), bilateral (with Turkey, China, Egypt) and regional (COMESA, EAC) levels. In addition, Uganda as part of EAC has agreed on the Economic Partnership Agreement with EU and is yet to sign. These have provided an opportunity for Uganda to access external markets for its goods. However, challenges persist, for instance:

- i) Market penetration challenges in terms of complying with Non-Tariff Measures (NTMs) such as sanitary and phytosanitary measures.
- ii) Nearly 73 percent of the agro-industries lack international quality certification;
- iii) Supply capacity was never enhanced as demonstrated by a weak production base as discussed above;
- iv) Uganda’s agro-industrial exports are mainly primary commodities or with marginal value addition; and
- v) The focus has been on the competitive external markets with less attention to the domestic market—which is essential for the learning-by-doing process. While the external markets are important for learning and copying innovations, they should come only after firms have mastered competitive skills in the domestic market.

In the competitive external markets, it must be emphasised, Uganda will get what it negotiates, *but* not what it deserves. For instance, Uganda has six bilateral trade treaties (BITTs) with China in various categories (economy, trade, agriculture, education, and technology). However, how these are aligned to improve domestic exports (high value) to China is yet to be seen. The trade balance between these two economies has continued to widen. This raises concerns as to whether the BITTs will really better Uganda’s trade position with its trade partners.

Financing for agro-industry: Finance is a key support service required at all levels of the entire agro-industry value chain. For instance, 86 percent of the agro-manufacturing industries use retained earnings for working capital and to finance fixed assets; and the share of small-scale industries with a loan or line of credit stood at 6.3 percent in 2016 compared to 44.1 percent for Kenya. This suggests that access to finance remains a binding constraint that needs to be addressed to specifically, expand the production base, improve the processing capacities and improve Uganda's competitiveness both domestically and externally.

Considering the supply side of development finance, public funding for agro-industry remains inadequate. There are various government initiatives meant to support AGI development. These include the agricultural credit facility, the youth livelihood fund, the youth venture capital fund, microfinance support centre, and Uganda Women Entrepreneurs Project, among others. However, these initiatives are scattered among different agencies, have been uncoordinated and are non-transformative.

Another important supply of development financing has been through the development partners. However, increasingly the support is channelled through projects rather than programmes. Project financing is short term in nature. As such, it cannot be a source of a sustainable AGI agenda.

The share of AGI in total private credit increased from 13.9 percent in 2010 to 18.9 percent in 2017. Specifically, supply of private credit towards AGI increased three - fold from UGX 785 billion in 2010 to UGX 2,317 Billion in 2017. A deeper analysis of these statistics reveals that a significant amount goes to the least risky segment of the AGI chain – that is agro-manufacturing industries (63 percent). The production base received a quarter of this credit. As such, financial institutions are increasingly focusing on the low risk, high cash flow and well collateralised segment of the value chain i.e. agro-manufacturing, leaving the high risk agricultural production under-served. This partly affects the capacity to finance investment for raw material production and in turn the critical integration between production and agro-manufacturing industries - hence the need for strategic state-guidance of the integrated agro-industrial sector.

Proposals for a sustainable and transformative agro-industrialisation agenda

The Report proposes four interrelated action points to foster a transformative and sustainable AGI path for Uganda:

- (i) An integrated approach to agro-industrialization;
- (ii) A Program-based approach;
- (iii) Revisiting the current institutional framework; and
- (iv) Government should move beyond provision of an enabling environment.

Each of these action-points is discussed in detail in the subsequent sections.

An Integrated Approach: The integrated approach that the report proposes is summarised in the Integrated Model presented in the figure below: first, a key feature of this integrated model for Uganda is that production is anchored on agro-manufacturers with government playing a key strategic role in the provision of public services such as R&D and extension services but guided by the industrial requirements. Second, government creates an enabling environment for transformative value chains. The aim is to unlock the key productivity enablers such as R&D, increase technology adoption, unlock opportunities for irrigation, establish better storage facilities, increase access to patient finance, and encourage efficient land use. These will arguably be necessary prerequisites for unblocking transformative AGI in Uganda.

The main concern is that the different agro-industry segments (i.e. production, manufacturing and markets) are currently not integrated. The enablers at all segments are addressed in a piece meal uncoordinated manner. The proposed model addresses these shortcomings coherently, as indicated hereunder.

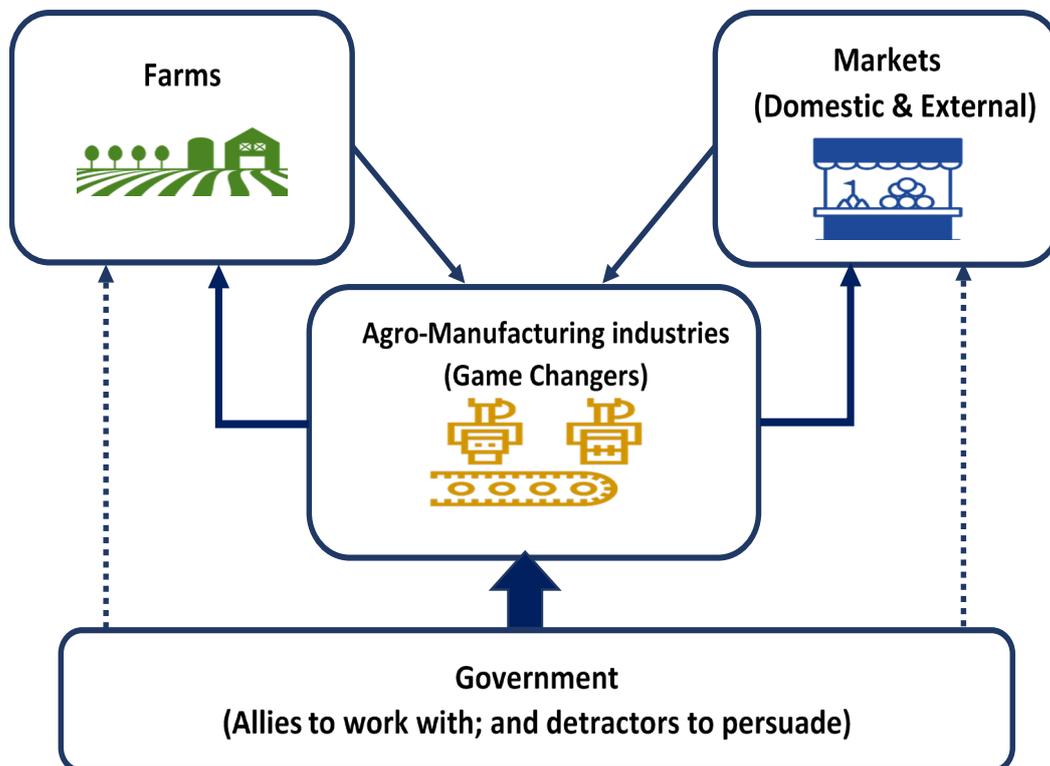
For transformative AGI to be realised in Uganda, government, in partnership with agro-manufacturing industries and other institutional actors (such as development partners), must seek to realise the following:

- i) Improve the organisation of agricultural production (by coordinating the procurement of agri-inputs such as improved seed for (small-scale farmers) for agro-manufacturing industries;
- ii) Increase the adoption of modern technologies and practices (eg seeds, tractor hire services; drones; solar-powered irrigation technologies etc) by:

- (a) Reviving people’s producer cooperatives;
 - (b) Restoring the (district) demonstration farm; and/or
 - (c) Strengthening sub-counties as instruments of rural agricultural transformation.
- iii) Mobilisation of patient capital to meet the unique financing needs of agriculture and related support services; and
- iv) Rethink the issue of market creation by following a cautious approach to the competitive external markets (which are outside our control) in favour of a creative approach to domestic market creation (for example, by causing all MDAs to prioritize procurements from local manufacturers. Activating the MoTIC policy of **Buy Ugandan, Build Uganda** would go a long way in realizing the goal of domestic market creation, if only government (represented by MDAs) could walk-the-talk.

To make the integrated model work over the long term, there is need for Uganda to observe the 3Cs – that is commitment, coordination and cooperation of the key players along the AGI value chain.

Proposed integrated model for agro-industry



Specifically, government is being urged to shift from what is currently being done, that is, creating a minimalist, pro-market “enabling” environment to a new dispensation under which government performs the following strategic roles:

Provide effective coordination of all actors in the AGI program across relevant MDAs and non-state actors

- Ensure that the relevant MDAs embrace this approach
- Create awareness to endure a sense of ownership
- Direct non-state actors to work within this common action.

Ensure integrated planning and budgeting aligned to a transformative AGI agenda

- Start with fewer and fundable priorities in the short-to-medium term.
 - a) Identify critical areas of public and private investment for these fewer priorities
 - b) Identify and forge partnerships with high end manufacturers that are transformative not based on patronage and politicking. These partnerships should be guided by well thought through

performance contracts. After the initial start-up, support from government must be conditional on satisfactory performance. For instance, the manufacturers should be tasked to continuously deepen the value chain (moving from light to high-end manufacturing).

- c) Identify niches for direct public investment support.

Re-organise and strengthen production and productivity to sustainably support agro-manufacturing industries

- *Re-organise production for agro-manufacturing industries*
 - a) Revive people's cooperatives and encourage them, where possible, to control the full spectrum of agro-manufacturing value-chains for the benefit of members (and national development).
 - b) Facilitate the formation of effective farmer groups/associations/cooperatives to smoothen information flow between farmers and the agro-manufacturing industries to ensure sustainable supply of raw materials.
 - c) Revive the agro-input system that will enable producers to access improved seed technologies, fertilizers, drones, tractor-hire services and other inputs without having to pay upfront. These costs could be subsidized by the state or recovered when farmers/ cooperatives bring their produce for sale.
 - d) Re-organise the current input subsidy to be demand driven and owned by farmers by contributing a *small* proportion on the prices set by implementing agencies to increase on the survival rate;
 - e) Develop and maintain farmer registration.
- *Re-organise the management and use of public institutional land (such as land for the prisons, government ranches etc) as a quick response to kick start AGI e.g. for nuclear farms/farmers as out-growers*
 - a) Identify, map and gazette public land.
 - b) Support private sector gain access to this land for commercial production conditional on set guidelines and performance targets.
- *Support R&D that is tailored to specific agro-manufacturing industries (right varieties, in the right quantities, quality and in time) in the short- to medium-term. In the long term, support public-private*

partnerships to promote a national innovation system

- a) Support the multiplication and scaling up of relevant R&D products and innovations. Support can be in form of financial, human resource, etc.
 - b) Identify and forge partnerships between the public and private sector institutions involved the R&D and innovation.
 - c) Effectively coordinate the traceability, procurement and distribution of R&D by public institutions.
 - d) Intensify disease control through veterinary cordon fences and increase traceability of individual animals to support agro-industrialisation around beef, dairy and the leather industries.
 - e) Revisit the current input subsidy to be demand driven to promote ownership by farmers through farmers making a small contribution towards the cost of the inputs.
- *Promote knowledge sharing and extension system relevant for specific agro-industry*
 - a) Effective provision of crop-specific extension services with clear performance guidelines and accountability mechanisms.
 - b) Identify the knowledge gaps to be filled by the extension services by commodity;
 - c) Targeted sensitization mind-set programs at all levels - e.g. change from traditional to improved technologies.
 - d) Policy experimentation with systems that have proven successful e.g BRAC's Community Knowledge Workers (CKWs) model.

Improve market access for agro-industrial products

- Protect infant agro-manufacturing industries
- Promote use of domestically produced agro-manufacturing industries products
- Upgrade value chains through expansion of the manufacturing capacities (up-stream, mid-stream activities). The deeper the value chain, the greater the opportunities for value addition, job creation and expansion of domestic revenue mobilisation
 - a) Increase funding to critical institutions e.g. UEPB to facilitate market access intelligence, UDC, UDB.
 - b) Timely feedback through market intelligence e.g. by the games changers, embassies

Mobilise long-term and affordable development financing to meet the unique finances for AGI

- Consolidate fragmented sources of credit and direct credit, and the various public interventions (e.g. ACF, YLP, UWEP, OWC) to strategic crops for greater impacts.
 - a) Channel such support to boost capitalisation of UDB to the games changers to support the entire value chain - e.g. in form of credit guarantees, credit and in-king advances
- Provide patient and affordable capital, i.e. at low interest and for a longer repayment period of 5-10 years (for farmers, cooperatives);
 - a) Must be timely and not bureaucratic
 - b) Transparency in transactions
- Promote uptake of equity financing

Consolidate and strengthen the policy and regulatory functions

- Regulate the manufacturers in support of inclusive development, with a view to ensuring that farmers who supply agro-industrial raw materials are not exploited by greedy capitalists (to ensure quality breeding and planting materials).
 - a) Through such tools as contractual arrangements, commodity exchange systems, warehouse receipt systems;
 - b) Promote a more proactive participation of the local governments to ensure that the required services are available at sub-county levels
- Oversee regulation and certification to ensure that products are competitive in the national, regional and, eventually, the global markets.
- Ensure that safety and quality standards are adhered to at all levels
- Patents and property rights among scientists to promote innovations and knowledge sharing.
- Create awareness as well as enforcement of regulations to ensure that farmers take the necessary action to protect themselves.
- Fast tracking the pending regulations such as fertiliser and pesticides; develop missing regulatory framework such as for tea industry.
- Ensure policy consolidation and coherence to eliminate contradictions, overlaps, and promote complementarity to support AGI
 - a) Ensure that there is only one working document with

measurable indicators monitored by the program steering committee and not at respective MDA level.

- b) Formulate or identify the policies that will support AGI program

Strengthening capacities in terms of

- Infrastructure
 - a) Support the manufacturers to develop the necessary infrastructure (such as irrigation, storage facilities, and marketing facilities) in the communities that they work in.
 - b) Regional hubs as one-stop centre
 - c) Industry specific traceability platforms
- Human capital
 - a) Deliberately link training institutions (e.g. BTVETs) to high end manufacturers to enable them equip with the necessary skills required for transformation AGI through internship, incubation programs and placements.
 - b) Promote knowledge sharing within and across R&D institutions both national and international

There is need to ensure effective implementation of the aforementioned tasks. It will be important for government to objectively identify the champions within government to drive the process as well as working closely with the possible detractors to gain their ownership and commitment.

The identified **high-end manufacturer should work closely with the farmers as follows:**

- a) Facilitate the formation of effective farmer groups/associations/cooperatives to smoothen information flow between farmers and the manufacturer to ensure sustainable supply of raw materials;
- b) Advance agro-inputs in the right quantities, quality and in time to farmers. This requires the manufacturers to work closely with OWC and NAADS;
- c) Identify the knowledge gaps to be filled by the extension services according to a given commodity;
- d) Create an incentive system that motivates farmers to keep supplying raw materials of the right quality and quantities for industry;
- e) Understand the market dynamics (domestic and external), and use such information to guide the institutions in R&D and in turn what farmers should focus on;
- f) Ensure that safety and quality standards are adhered to

at all levels;

- g) Upgrade value chains through expansion of the manufacturing capacities (up-stream, mid-stream activities). The deeper the value chain, the greater the opportunities for value addition, job creation and expansion of domestic revenue mobilisation; and
- h) Mobilise development finance and other resources to support the entire chain.

Take off and sequencing issues: A program-based approach should be adopted if Uganda is to achieve its AGI agenda on a sustainable basis. The program should start with *fewer* fundable priorities in the short-to-medium term. In addition, the program should follow an integrated planning and budget approach. Given the initial conditions as discussed above, the program should be spearheaded by a strong and committed steering committee, preferably chaired by MoFPED. The committee should have clear and measurable performance targets.

On the institutional framework: There is need to rethink the current institutional framework—especially the role of government. In particular, the government has to take on a developmental state role to ensure the proper coordination and financing of actors. Furthermore, the government has to regulate the activities of agro-manufacturing industries to ensure support of inclusive growth. This can be attained through such tools as contractual arrangements, commodity exchange systems, and warehouse receipt system, among many. In addition, local governments have to play a critical role in ensuring that the necessary services are available at the sub county level and monitoring the performance of producers. For example, tractors for hire can be placed at the sub county level. Finally, the government has to retain the role of providing training and extension services as well as promotion of agricultural research and development.



The Economic Policy Research Centre (EPRC) is an autonomous not-for-profit organization established in 1993 with a mission to foster sustainable growth and development in Uganda through advancement of research –based knowledge and policy analysis.

Address:

Economic Policy Research Centre
51, Pool Road, Makerere University Campus,
P. O. Box 7841 Kampala, Uganda
Tel: +256414541023/4 Fax: +256414541022
Email: eprc@eprcug.org, Website: www.eprc.or.ug

Learn more at:



www.eprcug.org



TWITTER: [@EPRC_official](https://twitter.com/@EPRC_official)



www.facebook.com/EPRCUGanda



eprcug.org/blog