

# Briefing Paper

## Agro-Industrial Value Chain Addition in the East African Community

### Summary

This briefing paper explores agro-industrial value chains in the East Africa Community (EAC). It describes the concept of a value chain, and focuses on the benefits of value chain addition in the EAC, as well as its challenges and potential strategies in the context of the specifics of the region. The strategies are outlined from the perspective of both, value chain and non-chain actors, including the government, farmer cooperatives, private sector, non-governmental organisations and international organisations.

### Introduction

#### Agriculture in the EAC

The agricultural sector in the EAC is heavily reliant on certain staple crops – such as maize or rice – in terms of both income-generation and consumption. There is, on the whole, low agricultural productivity and persistently high post-harvest losses. Moreover, the majority of farmers, in particular smallholder farmers, support themselves through subsistence farming, rather than income-generation and a large proportion of trade is informal. Due to these factors food security remains an issue.

The agricultural sector in EAC has seen a number of new developments which are likely to be consequential for the producers. Notably, with a

growing urban middle class the consumer tastes have been changing, exemplified by the rising demand for processed foods and a move away from traditional staple foods. In addition, the recent EAC integration has effects on the producers through the implementation of region-wide policies, for example the Common Agriculture and Rural Development Policy and the EAC Food Security Action Plan, lowering of intra-regional trade barriers but also increasing competition as a result.<sup>1</sup>

The bottom line is that factors such as increased demand for processed foods, greater competition as a result of EAC integration and persistence of food insecurity, suggest that value chain addition could be beneficial for the agricultural sector in the EAC in order to address these problems and satisfy consumer demand.

## Agro-industrial Value Chain Addition

### Concept

A value chain can be described as a sequence of activities and services between the primary conception of a good and its sale on the final market; this contains a variety of actors including input suppliers, producers, traders, processors, and distributors, as well as technical, business and financial service providers<sup>2</sup>. There are three types of value – form, time, and space – though in the context of agro-industrial value chain the focus is on the change of the form of a raw material, i.e. processing and production. The overall goal of agro-industrial value chain addition is thus improving the ability of the agricultural sector of the economy to shift towards a more profitable and technologically sophisticated capital and skill-intensive position.<sup>3</sup>

### Potential in the EAC

Currently, only about 28% of the agricultural produce in the EAC region is processed.<sup>4</sup> The lack of agro-industrial processing is most frequently due to a lack of capacity, though even in areas where this is not an issue, available infrastructure and resources are only operated at 30-50% of their total capacity due to unreliable supply of raw material inputs.<sup>5</sup>

Of the total sum that the EAC agro-industries contributes to the economy, 40% is currently generated from food processing, which also accounts for about 30% of the total manufacturing in the region.<sup>6</sup> Although these figures seem relatively high, in reality most of this is generated from primary processing, for example grinding maize, rather than a direct creation of a marketable processed product.

Increasing the potential for processing food is important for the agricultural market development and can generate benefits for the economy as a whole. Most of the agricultural produce in the EAC consists of starchy crops and vegetables which are bulky and perishable, meaning that they have a short shelf-life and are therefore difficult and costly to store and transport. The market value of such goods – for example cassava or maize – is very low if

left unprocessed.

Beyond the low income-generation within the domestic market, this is also consequential for the export industry: not only is the return on primary agricultural goods low, their export also diverts potential value generation from the producers' region as the processing occurs in the importing country. In addition, most countries on the African continent are currently net-importers of value-added foods, further exacerbating the balance of trade.<sup>7</sup> Value addition through processing can therefore generate additional income and help the economy benefit from an increase in the value of exports and a decrease of the processed food imports.

Agro-industrial value chains also have the potential to foster inclusive growth through generation of sustainable jobs. Development of industries would create employment opportunities including for unskilled labour which is abundant in EAC, enabling livelihood diversification in the region. Smallholder farmers also stand to benefit, which would be significant due to their predominance in the region and the fact that most smallholder farmers tend to be women, who on average face higher income instability.<sup>8</sup> By building the capacity of smallholder farmers to better their production, which is necessary to ensure the adequate supply of raw material to the processors, their livelihoods and incomes could be improved by encouraging participation in the formal agricultural produce trade, rather than subsistence farming which is predominant among smallholder farmers at the moment. Moreover, helping farmers improve their crop yields can help reduce poverty. Some estimates show that as little as a 1% increase in crop yields can result in a 0.5-0.8% reduction in poverty.<sup>9</sup>

Apart from the producers, value-addition through processing will benefit the consumers as well. An increase in the number of processed products would satisfy the growing urban market and its demand for processed, rather than raw goods. Processing and value addition will be needed to transform several of the crops produced into a wider range of products for which there is relatively high demand (e.g., processed cereals, processed foods targeted to growing ethnic food markets, and livestock feed) in

local, regional, and international markets.

Processing has the potential to alleviate the persistent food insecurity in the region. With a rising middle class and expanding population, the region's booming consumption is being satisfied with increased imports of products that could be produced domestically.<sup>10</sup> The causes of food insecurity have been prescribed as low agricultural yields, high post-harvest losses – as high as 40% for some commodities – and the lack of adequate agro-processing and other value-addition technologies.<sup>11</sup> Encouraging value-addition can remedy these problems and as a result ensure availability of food to households.

## Strategies for Agro-Industrial Value Chain Addition

Agro-industrial value chain addition requires structural reform, as well as the active participation of all actors within the agro-industrial sector. These include value chain actors such as farmers, industry leaders, retailers. However, non-chain actors' participation is also required; these include the government, NGOs, CSOs and private actors such as banking institutions or other service providers.<sup>12</sup>

**Figure 1: Key Challenges to Value Chain Addition in the EAC**



Although each actor has a specific role to play – as is later discussed – most successful initiatives usually come from partnerships. Forming partnerships and alliances can facilitate information sharing, promote good practice, enable better access to markets, and help develop informed and inclusive policy change.<sup>13</sup> Such partnerships may include:

**Private-private value chain upgrading:** done by value chain actors only e.g. Unilever’s inclusion of small tea producers from Kenya<sup>14</sup>

**Public-private value chain upgrading:** non-chain actors can help the upgrading process by providing technological, organisation, political and educational support OR by changing macro policies

The type of partnership ultimately depends on the specific challenges an individual country or region faces within their agro-industrial value chains. For example, improvements in infrastructure require policy initiative from the government but also likely investment from the private sector, and therefore such huge projects are more suitable for public-private partnerships.<sup>15</sup>

## Government

The government has the ability to encourage value chain upgrading through legislation, regulation and policies. On a macro scale this can range from market and trade regulation, to legal services, to taxation. When trying to encourage value chain addition it is essential for the government to make a well-informed, strategic choice of an agricultural commodity to promote.

Primarily, the government’s policies need to focus on building capacity which would maximise opportunities at each stage of the value chain and enable the private sector to more actively engage in agro-industry. Such policies should include the following main features:

### ► *Enabling infrastructure development*

The infrastructure in this context includes transportation, water and energy. In the EAC, in particular in rural areas, there are gaps in

basic services which prevent value-addition of a product. At the agricultural producer level there are inadequate water and irrigation systems, as well as no greenhouse structures to prolong seasons and increase yields.<sup>16</sup> The distributors, in turn, are faced with poor quality roads which prevent speedy delivery of products and increase the risk of product damage. The lack of requisite storage facilities is another problem. The processors’ challenge is the frequently unstable electricity supply for the operation of machinery and processing equipment. By encouraging the improvement of infrastructure the government can alleviate these problems, and therefore facilitate value chain addition.

Apart from physical infrastructure, the government can also support value chain addition through ‘soft’ infrastructure, and in particular economic infrastructure. By creating market-supporting institutions the government can help reduce transaction costs along the chain. These can include improved Market Information Systems (MIS), trade-friendly commodity standards, and credible Warehouse Receipt Systems (WRS).<sup>17</sup>

### ► *Extensions and advisory services*

In addition to education and training, the government can provide extension and advisory services, which can be defined as “systems that facilitate the access of farmers, their organizations, and other value chain and market actors to knowledge, information, and technologies; facilitate their interaction with partners in research, education, agribusiness, and other relevant institutions; and assist them to develop their own technical, organizational, and management skills and practices and improve the management of their agricultural activities”.<sup>18</sup>

Education and training is especially important in economies where the majority of the labour force is low-skilled. This can address numerous issues such as better farming practices; understanding basic finance and accounting; training unskilled labour to work in the industrial sector; understanding of markets and value chains; management skills and business development; and other skills practices that can help value chain actors improve the management of their tasks.

### ► *Providing access to new technologies and other resources*

Access to new technologies and other resources could be provided through, for example, import subsidies on processing equipment and foreign partnerships that could see the transfer of technological and other expertise. The government could also ensure access to local resources: a key component of this is land rights, and formal allocation of other resources.

### ► *Financing*

Lack of access to finance is one of the greatest constraints to agribusiness development. Formal financial institutions typically avoid the agricultural sector and smallholder farmers in particular because of high risk in agriculture, the cost of lending and the farmers' poor financial records and lack of acceptable collateral.<sup>19</sup> The government may remedy this situation by providing not-for-profit or other credit-lending services. Access to credit can also be provided indirectly, for example through the aforementioned improvements to 'soft' economic infrastructure: Warehouse Receipt Systems can provide a secure method through which stored agricultural commodities can serve as collateral for financial instruments.<sup>20</sup>

Apart from the issue of credit provision, risk mitigation is also problematic as formal insurance mechanisms are absent. The government could respond to this by using legislative innovation and utilising government funds to support guarantee funds and agricultural insurance.<sup>21</sup>

### ► *Enabling greater market access*

The government can encourage greater market access for example by negotiating international trade agreement which could cut down trade barriers of processed agricultural exports in their trading partners' markets.

## **Farmer Cooperatives**

Farmer cooperatives have recently evolved into multipurpose organisations that can provide a multitude of services to their members and can

facilitate value chain addition by empowering farmers and enabling them to improve production. An example of this is the Muki Farmers' Cooperative Society in Kenya which has evolved from a small initiative to pool savings to a large farmer-led dairy cooperative which satisfies social and commercial needs to help farmers optimise their business goals.<sup>22</sup>

Generally, farmers' cooperatives can be beneficial to farmers by providing them with the following:

### ► *Economies of scale*

Farmer cooperatives can help farmers, especially smallholder farmers, profit from economies of scale: by bulk-buying inputs, technology, reducing transport costs and accessing other products and services collectively at a lower cost.

### ► *Financing*

By coming together through cooperatives farmers can create their own methods of accessing credit and informal insurance. This can be done through known micro-financial methods such as self-help groups which pool savings and offer loans, for example.

The farming cooperatives can also become more formal lending institutions themselves through a similar mechanism, i.e. by collecting annual dues and using this money to supply credit.

### ► *Formal collective representation*

Farmers' cooperatives are well placed to understand and, as a collective body, represent the needs of individual farmers. They can therefore engage in effective lobbying and networking, as well as form strategic alliance with mutually beneficial institutions in order to ensure the farmers' interests are represented and are translated into government comprehensive policies.<sup>23</sup>

### ► *Training and education*

The cooperatives can also step into training and education, if the government or private sector services are absent or inadequate. In fact training provided through these cooperatives may be more

effective because it is more aware of the needs of the farmers and is delivered by a trusted institution. Training schemes can include basic record-keeping; food safety and quality measures; management and so on.<sup>24</sup>

## Private sector

Businesses and the private sector more broadly can play a key role in value chain upgrading, whether they are individual companies, groups of small businesses or business cooperatives.<sup>25</sup> In many countries, the private sector is heavily involved in driving value chains, while the government and the farmers' cooperatives tend to play a supportive role.<sup>26</sup> This is predominantly due to the fact that after the 'agricultural production' step in the value chain, the remaining actors involved in each subsequent step are private transport companies, processing firms and other actors who tend to be private.

The private sector's role in value chains in many ways intersects with that of the government and the farming cooperatives, and these sectors often work in tandem, as seen through the earlier discussed examples of public-private, and private-private partnerships. It therefore often provides financing for projects created on the government's initiative. This can include investment in government-led physical infrastructure development or financing extension and advisory services for specific objectives, inputs and/or value chains.<sup>27</sup>

Some of the key activities which contribute to value chain addition and are unique to the private sector include:

### ► *Financing*

Aside from directly financing government projects, the private sector can also play a role in financing other actors along the value chain. Although the formal financing institutions generally tend to not finance small scale farmers, new private sector-driven solutions have emerged in the recent years which provide financial services to the poorer customers in a way that is profitable for the companies involved. An example of this is M-Pesa in Kenya, which is a mobile-phone money transfer and microfinance

service through which people can deposit, withdraw, and send money. Moreover, services such as M-Pesa have been shown to provide informal insurance and help house-holds better deal with external shocks by encouraging saving and allowing friends and family members to send each other money from remote regions to help mitigate risk.<sup>28</sup>

Besides credit for input supplies for farmers, financial services are required for almost every step along the agro-industrial value chain. This may include product financing (e.g. input supplier or marketing company credit); receivables financing (e.g. trade receivables finance); physical asset collateralisation (e.g. warehouse receipts, repurchase agreements); risk mitigation products (e.g. insurance, forward contracts); and finance enhancement (e.g. loan guarantees, joint venture finance).<sup>29</sup> The variety and complexity of these services stretches beyond the capacity of most governments and therefore it is essential for the private sector to step in and provide these formally.

### ► *Marketing and business skills*

As with more complex financial services, the private sector is better equipped and more experienced when it comes to marketing and business strategy in a sector. Since it is within a private company's interests to gain as much market information and intelligence as possible, and promote the most beneficial business strategies, they tend to be more efficient in developing the agro-industrial sector, particularly when it comes to choice of commodities to process and products to make. In this way the private sector can provide business development services and play a supportive role in enhancing the operation of the different components of the value chain.<sup>30</sup>

### ► *Product and process innovation*

The private sector is generally considered to be the main generator of innovation and creativity within an economy. While the government may open up trade and bring in new technology and expertise into a country, it's up to the private sector to adopt it. However, in most developing countries the private sector generally does not participate very

actively in agricultural innovation itself, therefore the government still has somewhat a role to play to stimulate participation.<sup>31</sup>

## NGOs and IOs

The Non-Government Organizations (NGOs) and International Organizations (IOs) typically have an advisory or a facilitating role in value chain addition, stepping in where other actors are not performing their services or providing assistance to existing projects. Some micro-financial services are run by NGOs rather than for profit organisations; education and training is often provided through NGO projects; even infrastructure development initiatives can be run and financed by IOs or NGOs. This also applies to extensions and advisory services where organisations ranging from USAID to the World Bank have created projects.<sup>32</sup>

## Conclusion

As the EAC integrates further and encourages greater competition, and the middle class continues to increase and the evermore increase in demand for processed foods, value chain addition will become increasingly necessary. It has the potential to not only satisfy consumer demand but also is important for the agricultural market development and can generate benefits for the economy as a whole. Specifically, agro-industrial value chain addition has great potential to achieve the following results:

- Reduce food insecurity
- Decrease the need for food imports
- Create sustainable jobs and facilitate livelihood diversification
- Increase household incomes and reduce rural poverty

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## agriculture

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