Ghana's Tomato Processing Industry: An Attractive Investment Option in 2016

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Introduction

Agriculture provides employment to 50% of Africa's labour and is the main source of income for its rural population, which represents 64% of the total population (Africa Competitiveness Report, 2015). However, the sector is currently characterized by a high percentage of rain-dependent small holder farms (c.80%), cultivating low-yield staple food crops and declining contribution to GDP, primarily due to limited value addition and low productivity.

Post-harvest loss across Africa is about 30% (approximately USD 4 billion). The sector's contribution to GDP is slim, coming in at 15%, according to the World Economic Forum Africa Competitiveness Report, 2015.

Value-added agriculture's share in GDP comes in at just 11% for Sub-Saharan Africa, compared to 30% in ASEAN economies. It is disappointing that despite its vast resources, Africa's food staple imports are in the region of USD 25 billion per year. However, this also lays emphasis on the huge economic void for commercial farming and value- added agriculture.

GHANA: Structural Transformation

Ghana has seen a reallocation of economic activity from agriculture into the services sector over the last ten years. Resource allocation, particularly labour, has shifted from agriculture and value-add agriculture and directly into services. Employment in agriculture declined from 62% in 1992 to 42% in 2010; implying that more than half of the country's workforce, which used to be in agriculture, is gradually shifting from agriculture to the service sector, bypassing the manufacturing sector.

As a result, Ghana's economic transformation has by-passed manufacturing and moved straight into services. Manufacturing sector contribution to GDP has steadied over the past 6 years, averaging at a 6.25% growth annually. In 2014, manufacturing accounted for just 5.9% of GDP in Ghana. There are reasons for this, chief among them being restrictively high energy charges and operating overheads, low level financing from the financial services sector, comparatively high cost of credit, an infrastructural deficit, and a blind dependence on imports.

Like most of Africa, limited value–addition to primary industries is a drag on the country's economic progression, and this manifests itself in resource stress, poor economic diversification and unsustainable income growth over the long term.

For example, agricultural value-added share in GDP has decreased remarkably in the past 10 years (from 41.5% in 2004 down to 19.9% in 2014), whereas service sector contribution has increased, accounting for 51.7% of GDP in 2014 (from 49.2% in 2009).

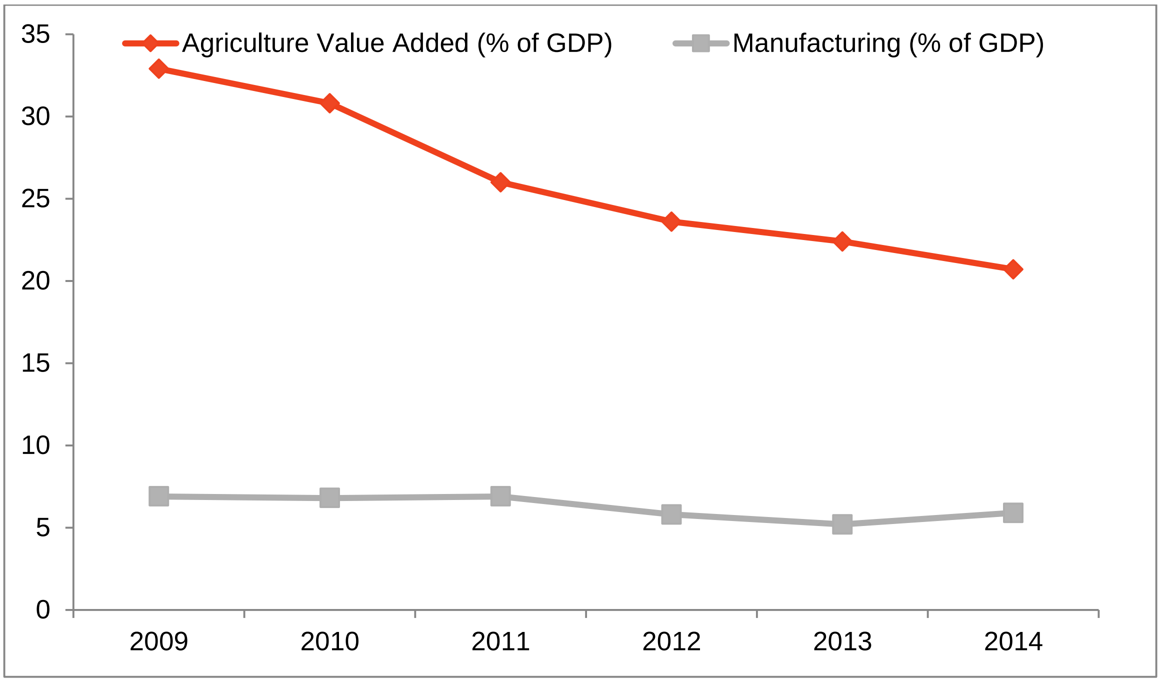

Fig. 1 Agriculture value-added and manufacturing deficit in Ghana from 2009 to 2014

In order to maintain sustainable growth, it is essential that the country's resource allocation is re-balanced, and shifts into manufacturing. This insulates the economy against global commodity price shocks and positively improves the net capital flow as food imports reduce.

Progressive governance, enabling technology, a narrowing infrastructural deficit, and broad strategic initiatives that seek to encourage lending to the primary sector will transform Ghana's agriculture and agro-processing sector in the medium to long term. One initiative that seeks to steer the course of labour flow back into agriculture and agro-processing is the Youth in Agriculture Programme, a Government of Ghana agricultural sector initiative aimed at encouraging the youth to take up farming and / or food production as a commercial venture.

We are seeing gradual improvements in these broad areas, and expect the agriculture and agro-processing industries to re-boot over the medium to long term, especially as smart capital moves into large scale agriculture. It is our opinion that production, supply and consumption systems can be scaled up. Near optimal output levels can be expected with the introduction of formalized more efficient management systems in the agriculture and agro-processing space.

Ghana: A Favorable Investment Destination for Agro-Business

Despite its current energy challenges, Ghana ranked number 11 in Sub-Saharan Africa ("SSA") among 47 economies covered in the World Bank 2016 Ease of Doing Business Report and the best business destination in West Africa. Ghana's growth rate has been forecasted to recover to 5.9% in 2016 (versus 4.6% for SSA; 3.3% World) and 8.2% in 2017 (versus 5.0% for SSA; 3.2% World). Intensified oil and gas production, private sector investment, upgrades in public infrastructure, progressive governance and accountability, and political stability underline these growth projections.

We expect agriculture and agro-processing industry growth to be pegged at +/- 2% of Ghana's forecasted economic growth, so long as sound, enabling macro-economic and industry level policies are implemented and maintained.

This report seeks to explore the merits of value addition to agricultural commodities, and focuses primarily on the tomato processing industry in Ghana. This is an especially interesting micro segment to analyze because of the following:

1. Ghana is estimated to consume in excess of 100,000 metric tonnes of tomato paste annually at a cost of more than $100 million;
2. A tomato processing factory, set within reach of local farmers, which operates throughout the year has the potential to increase the income of farmers by over five times; and
3. Approximately 90,000 farmers are involved in tomato production, and more than 300,000 individuals are engaged in both retail and wholesale of raw tomato and processed tomato products in Ghana.
4. Ghana has the right topographical and agro-ecological conditions, and one of the biggest agricultural dams in West Africa (the Tono Dam, situated in a tomato farming region, can be used to produce tomato all year round).

Economic Performance

Macro-Economic Overview

Ghana is the second largest economy in West Africa. The country's economy has grown remarkably over the last decade, achieving peak growth rate of 14.4% in 2011 after oil production went commercial. Ghana's GDP surged to 0.90% in the second quarter of 2015, compared with the preceding quarter. According to the Ghana Statistical Service, GDP growth rate averaged at 2.13% between 2006 and 2015, hitting a record high of 8.10% in the first quarter of 2012.

Real GDP growth declined to 3.4% in 2015 from 4.0% in 2014 due to the current energy crisis. Nevertheless, Ghana expects to receive a huge capital inflow of USD 1.5 billion as well as disbursements from development partners before the end of 2015.

Ghana's economic growth has followed a sensible trend, maintaining a mean yearly growth rate of around 8.0% over the last six years, making Ghana a low middle-income economy in sub-Saharan Africa.

Additionally, the country has made reasonable advancements in poverty reduction, and has worked towards meeting the Millennium Development goal to half poverty rates by 2015; poverty rates in Ghana has reduced from 52% in 1991 to 24% in 2013. However, real GDP growth rate is projected to decline to 3.4% in 2015 from 4% in 2014, due to ongoing energy challenges that have impacted economic output.

Despite satisfactory economic growth in 2014, Ghana's economy was mired in challenges, notably, a sharp currency depreciation of over 30% in the first 9 months of 2014, worsening power crisis, weak macroeconomic performance, rising interest rates and high inflation (which averaged at 17.0% in 2014).

The economy was further hit by net capital outflows in June 2015, partially driven by global market volatility. As a result, gross international reserves decreased by USD 1.1 billion, by late Jun 2015, to USD 3.2 billion.

In spite of this, Ghana's growth rate has been forecasted to recover to 5.9% in 2016 and 8.2% in 2017 on the premise that the power crisis would be dealt with before 2016, and the planned fiscal adjustment, supported by the IMF and other development partners, is not tampered with and remains in line to meet the 2017 objectives. Nonetheless, unpredictable international oil prices could lessen the rate of economic growth in 2016. However, World Bank growth projections for Ghana over the long term remain optimistic and positive, indicating confidence in the country's future performance.

Currency Performance

The Ghana Cedi depreciated by 31.2% against the US dollar between January and September 2014. By September 2015, the Ghana Cedi had depreciated by 21% against the US dollar. However, medium term projections estimate a reversal to single digit inflation, and a positive reversal in currency performance.

Inflation

Consumer prices increased by 17.40% year-on-year in October 2015, similar to the previous month, as more stability in the Ghana Cedi exchange rate lowered import prices. Compared to October 2014, food prices and non-alcoholic beverage prices rose by 7.8%. Non-food inflation slowed slightly to 23.0% from 23.2% in September. Housing, water, electricity, gas and other fuels went up by 23.1% (+23.6% in September); clothing and footwear rose 24.5% (+24.9% in September) and education increased 28.8% (+29.6% in September). In contrast, prices of recreation and culture increased at a faster rate of 29.9% (+27% in September); transport went up 25.7% (+23.8%) and furnishings rose 24.5% (+23.4%).

On a monthly basis, consumer prices increased 2.7%, compared to a 0.1 percent drop in September 2015.

Public Debt Management

Increasing domestic arrears presents additional risk to public debt management. According to the Bank of Ghana, the country's public debt, including both domestic and external debt, hit 58.4billion Ghana Cedis at the end of March 2015.

Large currency depreciation and higher external indebtedness have placed Ghana at a high risk of debt distress. Overall, debt vulnerabilities have increased since the last DSA, where the risk of debt distress was moderate.

However, if planned fiscal policies are implemented, total public debt is projected to decline from 70% in 2014 to 58% of GDP in 2019 (following an initial increase to 72% of GDP in 2015) and 39% in 2034, with total public debt service absorbing around 40 percent of government revenue in the long run.

Fiscal consolidation measures, combined with a more ambitious medium-term adjustment and measures to smooth out principal repayments would greatly reduce the risk of further worsening debt and debt-service indicators. Any sizable deviation from the fiscal consolidation program would stall the projected decline in the public debt path and further increase public debt vulnerabilities. High levels of gross financing need are also worrisome.

Furthermore, the bullet feature of Eurobonds accentuates Ghana's roll-over risk and its vulnerability to global financial conditions in the medium term.

Ghana's public debt has steadily increased over the past decade, largely through the issuance of local currency-denominated domestic debt. In addition to large budget financing needs, Ghana's domestic debt market has doubled relative to its GDP over the past decade. Furthermore, as a rapidly growing frontier market, Ghana has increasingly attracted foreign investors in the domestic debt market since it opened up the market to non-residents in 2006. External debt increased gradually through a series of Eurobond issuances under relatively benign global market conditions. The large increase in external debt (as a percentage of GDP) in 2014 is mainly attributable to marked local currency depreciation

Ease of Doing Business in Ghana

Despite its recent macro-economic challenges, Ghana still emerged as the best business destination in West Africa and number 11 in sub-Saharan Africa in the World Bank's 2016 Ease of Doing Business ranking. Ghana ranked 11 among 47 economies covered in the 2016 report, compared to Nigeria (36), Cote d'Ivoire (17), Burkina Faso (143) and Togo (22). This is a vote of confidence in the country's future potential.

The report highlighted good practices in ten of the areas measured by Doing Business indicators, in which Ghana scored the highest marks compared to Nigeria, Cote d'Ivoire and all other West African countries.

conomy	Starting A Business	Dealing With Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Minority Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
hana	13	23	9	5	4	4	15	36	14	36
ote d'Ivoire	5	44	19	14	21	31	37	23	17	7
urkina aso	8	7	42	27	21	25	28	9	36	18
ogo	23	43	5	47	21	31	31	18	19	9
igeria	26	40	41	46	7	2	41	42	25	28

The Case for Agriculture

Ghana is the second most populous country in West Africa. As at January 2015, the country's estimated population was 27 million, up from the official census figure of 24.2 million in 2010. Annual population growth rate is estimated at 2.19%. The country's population is expected to grow to over 60 million by 2050.

This rapid increase in population has critical consequences for Ghana's food security. Currently, approximately 1.2 million people, representing 4% of Ghana's population are food insecure, with about 2 million people vulnerable to become food insecure.

Ghana is heavily reliant on food imports, and this continues to impact the country's accounts. Ghana's imports for Q1'2015 came in at USD 3332.50 million from USD 3826.50 million in the fourth quarter of 2014. This is very high, given the resource wealth of the country and its vast supply of arable land.

Industry and agriculture together constitute 28.4% of the economy. However, growth in the agricultural sector has been slow (peaked at 5.2% between 2010 and 2014) due to a resource shift into services over the last decade.

Ghana's agriculture sector contributed 21.5% of Ghana's GDP in 2014 and 19% as of September 2015, dropping at a shocking rate of 12.8% in seven years (31.8% in 2009 to 19% in 2015). But yet still, agriculture continues to be the largest employer, employing just over 40% of the country's workforce (about 50% of the population live in rural areas and are mainly dependent on farming).

Ghana attracted agricultural investments worth more than USD 4.23 billion in 2011, representing a 70% increase over the 2010 figure of USD 2.490 billion. However, only 57.6% (7,846,551 hectares) of its 13,628,179 million hectares of arable land is cultivated. The sector remains under tapped, and requires smart management to unleash its full potential.

Ghana currently produces less than 30% of the raw materials needed by its agro-based industries. Agro-processed exports in Ghana alone increased from USD 181.1 million in 2004 to USD 902.5 million in 2011, representing 398% growth (Oduro and Offei, 2013). Further, agro exports accounted for 7.4% of total merchandise export earnings in 2004, plummeting only to 4.9% in 2011.

Ghana's fast growing middle-class is a ready consumer base for locally-processed foods. But since local food processing remains too small to satisfy local demand, high-value food imports have risen quite considerably, despite government incentives (tax holidays) which have been put in place to promote the local agro and food processing industry.

Fresh Tomato: The Red Gold Creating Wealth

By industry estimates, Ghana produces over 300,000 metric tonnes of tomatoes, 90% of which is consumed locally. Tomato is a staple ingredient in the daily diet of Ghanaians, and accounts for 38.0% of total vegetable expenditure in Ghana. Popular varieties grown in Ghana include Roma VF, Laurano, Raki, Chocó TP, Power Reno, Rasta, Italy Heinz and Petomech, which are mostly suitable for processing.

The daily demand for tomato products continues to increase across all regions of the country, as it is a dietary staple in every household, hotel and restaurant. With the growth of Ghana's middle-class, and Ghana's population increasingly becoming urbanized, consumers have grown an insatiable appetite for convenience foods. As a result, the demand for tomato paste used for the preparation of a broad range of both local and foreign cuisines has increased. This demand for tomato paste (in quantity and quality) is also spreading in the sub-region and could provide a meaningful consumer base for locally-processed tomatoes.

But, unfortunately, the tomato processing industry in Ghana remains small and relies heavily on imports. **Ghana is estimated to consume in excess of 100,000 metric tonnes of tomato paste annually at a cost of more than USD 100 million.**

A strategically located tomato processing factory that processes tomatoes constantly throughout the year (rather than absorbing seasonal gluts) has the potential to increase the income of farmers over five times. Additionally, over 90,000 farmers are involved in tomato production, and more than 300,000 individuals are engaged in both retail and wholesale of raw tomato and processed tomato products. A study by *Clottey et al., 2009* on The Tomato Industry in Northern Ghana concluded that the tomato industry in northern Ghana alone had the potential to be competitive and stimulate the creation of a host of related and supporting enterprises with prospects for wealth creation.

Tomato production in the Upper East region of Ghana alone employs about 11,728 farming families with an average family size of 5 persons. It is estimated that 58,640 persons benefit from its production as noted in a survey report by Trade Aid Integrated.

According to the Ghana National Tomato Producers' Federation, Ghana produces 510,000 metric tonnes of tomato each year, while it imports up to 7,000 tonnes per month from its neighbors, alongside 27,000 tonnes of processed tomato from Europe.

Ghana has the right topographical and agro-ecological conditions, and also has one of the biggest agricultural dams in West Africa (the Tono Dam, situated in a tomato farming region, can be used to produce tomato all year round).

Despite this, the country seems increasingly incapable of producing enough canned tomato products. Statistics in 2006 have showed that Ghana was the second largest importer of tomato paste, only second to Germany, consuming an average of 25,000 tonnes of tomato paste in a year at a total cost of about $25 million dollars (Aryeetey, 2006).

The scarcity and high cost of tomato during the dry and minor seasons in Ghana is what accounts for the excessive imports of tomato paste and products into the country. For instance, industry data suggests that total production of tomato doubled between the 1970s/80s and the 1990s, but slid from 100,000 tonnes per year to around 50,000 tonnes per year in the 1970s and early 1980s respectively. Then in the late 1980s, production reverted back to around 100,000 tonnes, and expanded during the 1990s, averaging around 200,000 tonnes per year by the end of the decade. Notwithstanding this fact, during the 2000s, production fell gradually.

Currently, approximately 321,000 metric tonnes of tomatoes are cultivated annually, valued at USD 118 million, whilst 75,000 metric tonnes is imported annually to augment the shortfall. This short fall necessitated the importation of processed tomato worth USD 112.1 million in 2013 alone according to the Ministry Of Food and Agriculture. Also, despite this shortfall, farmers are still experiencing gluts and high post-harvest losses during major raining seasons. Out of over 510,000 metric tonnes of fresh tomato produced annually in Ghana, the country loses about 153,000 metric tonnes, representing about 30% of the entire year's produce.

Tomato Paste Industry: Ghana’s Neglected Goldmine

In the early 1960s, the Government of Ghana set up two tomato processing plants; the TOMACAN and the Pwalugu Tomato Processing factories. According to Robinson and Kolavalli, 2010, during the 1980s, both factories collapsed due to a mixture of structural reforms promoted by the World Bank and IMF; frequent breakdowns resulting from a lack of spare parts and obsolete machinery; lack of technical competence and financial management; and poor marketing. This resulted in the closure of these factories. The Government of Ghana has since made several attempts to revamp these factories into large scale tomato processing plants but to no avail. President John Dramani Mahama’s recent visit to the tomato district in Parma, Italy was an attempt to draw large scale tomato processors into Ghana.

The Pwalugu Factory was re-opened, and started running in March 2007, through a PPP agreement between the government and Northern Star Tomato Company (“NSTC”). The factory has the capacity to process 500 metric tonnes of tomatoes into puree, which is five times greater than the old processing capacity. The NSTC processes the puree for Trusty Foods Limited, an Italian subsidiary located at Tema which adds value and exports the product to the West African sub-region and the European Union.

The TOMACAN factory in Wenchi was also revamped in recent times under a PPP agreement between the government and the German Technical Cooperation (“GTZ”), Unilever Ghana Limited (“Unilever”) and Afrique Link Limited (“ALL”, “Afrique Link”). In the agreement, ALL acquired shares through a debt equity swap and was to be in charge of processing tomato paste and pulp, whilst Unilever was to package it into the TOMAROMA brand of tomato paste, market, distribute and sell the tomato paste in addition to assisting Afrique Link market its tomato pulp through a distribution system. GTZ and the government, through the District Agricultural Development Units (“DADU”) of the Ministry of Agriculture were also tasked with assisting the farmers in cultivating tomatoes to supply the factory in Wenchi.

GTZ contributed €200,000 for the project’s management and technical assistance to the farmers. One half of the GTZ contribution was used to finance the acquisition of 8% shares in ALL on behalf of the farmers through a Farmers Trust formed for the purpose. ALL and Unilever also contributed a minimum of €200,000 to be used mainly in the execution of their part of the project. In addition, ALL and Unilever were to finance other costs related to their operations in excess of the €200,000 already contributed.

Variety trials were undertaken, farmer-based organizations (“FBOs”) formed, and protocols developed to achieve yields of 20 tonnes per hectare. Financing was arranged for the farmers through Agricultural Development Bank (“ADB”). ALL also provided inputs to support production to some farmers, especially those in the Dormaa District who were refused credit because of concerns over side selling to nearby Cote D'Ivoire. ALL guaranteed all the loans to the FBOs.

In 2014, Techiman Processing Complex, an agro processing company, through a PPP agreement with the government of Ghana and a GHS 200,000 financial support from the Export Development and Agricultural Investment Fund ("EDAIF") established a tomato processing factory. The plant had halted operations for some time due to lack of raw materials for production. According to TEPCOs CEO, the company is still in the process of sourcing extra financing for its operations.

According to the FAO, Ghana has a total processing capacity of 1400 tonnes of fresh tomato per day (500 tonnes at Trusty Foods and Northern Star, 200 tons at Afrique Link Ltd in Wenchi and TEPCO in Techiman). If these three tomato processors were even operational at full capacity, they would be able to process 438,000 tonnes of fresh tomato, the equivalent of 54,750 tonnes of tomato paste each year (assuming a paste of 36-38% brix, requiring 8 tonnes of fresh tomato per tonne of paste), which is still a deficit to the annual demand of tomato paste in Ghana (in excess of 100,000 tonnes a year).

Government Incentives for Agro-Processors

Investors targeting the tomato processing segment will be able to explore certain incentive schemes put in place by the Government of Ghana to make the agro-processing sector of the economy more attractive. These include tax holidays for industries in agriculture and agro-processing and relatively much lower taxes for factories located in the hinterland.

Tax Incentives under Export

A corporate tax rebate allows any manufacturer or any person engaged in agricultural production, exporting part or all of his production, to claim tax rebates of between 40% and 75% of his/her tax liability.

A Custom Duty Drawback also allows exporters to draw back up to 100% of duties paid on material imported to produce goods for export.

Transferability of Capital, Profits and Dividends

Subject to the Foreign Exchange Act, 2006 (Act 723) and the regulations and notices issued under the Foreign Exchange Act, an enterprise shall, through an authorized dealer bank, be guaranteed unconditional transferability in freely convertible currency of dividends or net profits attributable to the investment made in the enterprise. This allows for the full repatriation of earnings in the currency of investment.

Double Taxation Agreements

Ghana also uses Double Taxation Agreements to rationalize tax obligations of investors who come from global tax sourced jurisdictions with a view to saving the investors the incidence of double taxation.

Investment Incentives for Agribusiness

The Ghana Investment Promotion Centre offers a range of incentives for agribusiness investors establishing production and/or processing enterprises in the country. These include, but are not limited to:

1. *a five-year tax holiday for agro-processing businesses, from the date of commencement of business;*
2. *custom duty exemptions for agricultural and industrial machinery and equipment imported for investment purposes; and*
3. *location-based tax rebates for manufacturing industries located in regional capitals*

Tax Incentives under Venture Capital Fund

The government of Ghana has also announced an enhancement of the tax incentives for venture capital finance companies who participate in the scheme announced in the 2006 budget statement as follows:

1. *the five -year full exemption from corporate income tax, dividend tax and capital gains tax for eligible venture capital finance companies has been extended to 10 years;*

2. *the 100% chargeable income deduction granted to financial institutions investing in venture capital finance companies has been expanded to include all corporate and individual investors who invest in venture capital financing companies;*

3. *distribution of interest, dividend and capital gains to investors in venture capital finance companies are tax exempt.*

Free Zones Act, 1995

Additional incentives have been packaged into the Free Zone Act of 1995 for parties interested in developing and operating export processing zones (EPZs). These include:

1. *Complete exemption from payment of direct/ indirect duties and levies on all imports for production purposes and exports from the Free Zones;*

2. *Complete exemption from payment of income tax on profits for a period of 10 years (the income tax rate after 10 years shall not exceed 8%);*

3. *Complete exemption from payment of dividend taxes arising out of Free Zone investments;*

4. *No import licensing requirements;*

5. *100% ownership of shares in the business entity by any investor;*

6. *No conditions or restrictions on the repatriation of dividends or net profits.*

Government Policy Supporting Agro-Processing

Ghana Trade Policy

This policy is set within the context of Ghana's long term strategic vision of achieving middle income status and becoming a leading agro-industrial country in Africa. The policy provides clear and transparent guidelines for the implementation of government's domestic and international trade agenda.

The government's trade policy, under the sectoral development of the agro-processing industry, stipulates that the expansion and diversification of production of goods and services are necessary to develop sufficient trade capacity to take advantage of export market opportunities and satisfy domestic market requirements. It further emphasizes that agriculture is by far the most important sector of Ghana's economy upon which most Ghanaians depend, and that agro-processing will play a central role in the diversification of Ghana's economy.

The policy's objective is to support diversification and stimulate productive investment and trade in the agro-industry, and further directs that the government specifically target the agricultural sector in the area of agro-processing, provision of basic foodstuff for the domestic market, and improving competitiveness through economies of scale production and improved technology.

Risk Analysis

Tomato processors; Trusty Foods, which sources most of its tomato from farmers in the Upper East Region of Ghana paid each farmer an average amount of GHS 154 per tonne. This is below the price at which farmers sell to fresh tomato sellers.

Interestingly, Trusty Foods offers the highest price than any other tomato processor in Ghana, and this does not even meet the price at which fresh tomato sellers are willing to pay for a crate of tomatoes from the farmers, hence compelling the farmers, (who encounter high cost of production and sometimes difficulty in obtaining credit) to sell to fresh tomato sellers for profit, making it difficult for local tomato processors to compete with imported tomato paste, which comes in at a lower price to the local option.

Farmers mostly supply tomato factories during the peak period, when the pre-agreed processor price is higher than the fresh market price, but eventually divert to the fresh market price, as tomato becomes scarce during the dry season and the price for fresh tomatoes increase above the processor price.

In 2008, the Pwalugu Tomato factory for instance, encouraged farmers to increase tomato production to supply the factory. The factories were willing to buy at GHs 15 per crate of 110 kg, but the tomato traders were willing to buy at twice this price, and, as expected, tomatoes were sold to traders.

When farmers were eventually ready and willing to deliver on their contracts to the Pwalugu Factory, Pwalugu had logistics issues, including insufficient crates for collecting tomatoes, insufficient transport facilities, and lack of cash to pay the farmers. Additionally, the relationship between farmers and processors had been affected by the aforementioned issues, and the little trust between farmers and processors waned after this experience. Subsequently, Pwalugu shut down again in 2008.

In 2003, *HEINZ,* which was contemplating purchasing the Pwalugu Factory abandoned the deal after its due diligence showed that it could not purchase tomato at economically low prices from the farmers to be profitable.

For tomato processing to be competitive in Ghana, the average per unit production cost needs to be sufficiently lower so that farmers can sell their tomatoes profitably and at low but guaranteed prices offered by processors. This will enable domestic tomato processors to compete favorably with Italian and Chinese tomato paste processors whose production costs are comparatively lower, hence their cheaper prices on the Ghanaian market.

Other processing challenges include the fact that farmers are unable to supply the factories with a sustainable flow of processing tomatoes such as H 3044 and H7151, which were the tomato varieties evaluated by H.J. Heinz Co. International in Ghana, and found to be both high yielding and excellent for processing. In 2014, the TEPCO tomato processing plant in Ghana had to stop operations due to the non-availability of tomatoes to ensure profitable and sustainable operations.

One of the causes of major costs involved in running a factory in Ghana is due to unreliable power supply from Ghana's national electricity grid. Most industries in Ghana rely significantly on alternative energy supply, which has also led to the development of other related energy industries like diesel and biogas- fueled generators which are more reliable and cost-effective compared with the supply from the national grid.

The Irony: Imported tomato paste is more expensive than locally processed tomato paste in Ghana

Market analysis on the Ghanaian tomato paste industry shows that there are several tomato paste brands on the Ghanaian market, most of which originate from Europe and China. Key tomato paste companies include:

1. Conserveria Africana, which produces the GINO and POMO brands of tomato paste;
2. Olam, which produces Tasty Tom;
3. Trusty Foods, which produces LA BIANCA tomato paste; and
4. Centro Esportazione Conservati, which imports SALSA from Italy.

Tomato paste imports currently amount to over 78,000 tonnes of paste per year, 12,000 tonnes of which are exported after repackaging.

In Ghana's tomato paste retail market, the 210 gram tin tomato paste is the most popular. Interestingly, LA BIANCA tomato paste, which is produced by Northern Star and packaged for marketing by Trusty Foods locally, is sold at a cheaper rate on the Ghanaian market, compared with SALSA tomato paste which is imported from Italy, and is the most expensive tomato paste product on the Ghanaian market.

Additionally, Tasty Tom, GINO (GINO Tomato paste is the highest selling tomato paste on the Ghanaian market) and POMO, which are imported and repackaged in Ghana for retail, have higher prices on the Ghanaian market as compared with the locally produced tomato paste LA BIANCA. This is because the GINO brand of tomato paste for instance, has invested significantly in marketing and packaging. A study by NIELSON on Ghanaian consumers discovered that Ghanaian consumers express a higher preference to buy brands that are advertised, available on promotion, possess attractive packaging and come in both small and bulk pack sizes.

This goes on to show that despite the high cost of production involved in tomato paste production in Ghana, the locally produced brands are sold at an averagely lower price, compared with the imported and repackaged ones, and also, most Ghanaian consumers show more preference to quality and well-advertised brands regardless of the price.

Import charges on foreign products have risen to an all-time high recently, resulting in the spike in tomato paste prices on the Ghanaian market and rendering imported brands more expensive than locally-produced tomato paste. This means that the marginal cost of paying above-the standard market prices for tomato paste produced in Ghana is lower than the marginal cost of importing tomato paste into the country, thus allowing locally-processed tomato to keep its gross margin at the minimum required to cover the cost of raw material inputs, operating costs and overheads, and to turn a reasonable profit.

Causes of the high cost of imports in Ghana

The growing middle-income bracket (about 5 per cent of the population) could provide a significant consumer base for locally-processed foods. But as local food processing remains too small to meet local demand, high-value food imports have been increasing (Wolter, 2008).

In 2013, Ghana exported USD 18.8 billion and imported USD 15.4 billion resulting in a positive trade balance of 3.39 billion. These exports are led by gold, which represents 29.6% of the total exports from Ghana, followed by cocoa beans, which account for 26.8%.
Imports decreased to USD 3332.50 million in the first quarter of 2015 (from USD 3826.50 million in the fourth quarter of 2014).

The causes of the gradual reduction in Ghana's imports is reinforced by Nana Kwame Akosah, 2014 in his literary work titled *Macroeconomic Implications Of High Import Demand In Ghana*, where he observed that, Ghana's import demand is currently inelastic and it is difficult for the domestic economy to control the level of imports, which implies that the economy ends up spending more when exchange rate depreciates, causing the trade balance to worsen in the short run. He further noted that the depreciating domestic currency increases the cost of imports, as traders then require more of the domestic currency to import the same quantity of goods. The higher cost of imports is then passed on to the consumers in the form of higher prices for goods.

Imports into Ghana were thus artificially compressed by the continued depreciation of the Ghana Cedi. In May 2014, total imports came in 17.8% lower compared with the same period in 2013.

These conditions present an opportunity for Ghana to reduce its dependency on imported tomato paste, which is a dietary staple in Ghanaian cuisines. It also presents a fine opportunity to local manufacturers of tomato paste given the strong demand for tomato paste in Ghana. The Indian company, Conserveria Africana Ghana Limited, in a bid to cut down on the high cost of tomato paste imports, established a USD 12.5 million (with over USD 25 million budget outlay) tomato factory with the capacity to produce 25,000 metric tonnes of tomato paste annually. According to its managing director, this move will help Ghana save more than $100 million in foreign exchange.

Italian Tomato Paste Imports Dwindling Due to high cost of imports

Italy is one of the largest exporters of tomato paste to Ghana (Ghana is the eighth-largest buyer of Italian paste from Italy). However, Italian tomato paste delivery to Ghana is shrinking gradually. According to an article by Agra-net in 2015, Italian tomato paste deliveries to Ghana peaked in 2012 at 28,898 tonnes. Exports then slumped by 10,000 tonnes in 2013, and dropped further to 6,321 tonnes in 2014. Shipment to the African continent was close to or above 20,000 tonnes in recent years, and over 30,000 in 2004. Deliveries in YTD 2015 show a strong decrease against previous years. At 1,721 tonnes between January 2015 and April 2015 shipments were down 71% in 2014 and 84% in 2013. High import costs partially account for the reduction into Ghana.

Recommendation

A core objective for any investor who wants to invest in the tomato processing industry should be:

1. *to focus mainly on improving livelihoods and generating long term sustainable income for local farmers and the communities where they operate;*

2. *to provide training and support that will help farmers improve farming practices; and*

3. *to give competitive, guaranteed minimum prices through contracts with farmers, assuring them that their produce will be bought, in spite of seasonal fluctuations in market prices.*

The above can be achieved by incorporating headline Millennium Development Goal principles into its operations.

To guarantee constant supply at competitive rates and manage costs, the transport of raw materials from farm to production site should be managed efficiently. One area of focus could be to build an entire industry around post-harvest loss management or create a formal sector out of what is already in place, not just for tomatoes, but for all primary produce, which will gradually revive value-added agriculture contribution to GDP.

Additionally, at least 60% of tomatoes used for paste production should be produced mainly from farmlands operated by the investor, or on contract farming basis, whilst 40% raw materials will be sourced from local farmers. This type of farming model is termed as nucleus contract farming, and is popular with the American and Chinese tomato processing industries. This model will ensure that there is always a constant supply of raw materials to the factory and lessens any unpredictability when tomato prices soar during off seasons.

Farmers should also be given incentives on the amount of yield they supply to the factory at any given time, in order to motivate them to keep supplying the factory. For instance, farmers need to be given targets to meet, and if any farmer is able to supply or meet that yield target, they can be awarded with a farm truck.

Despite the usual agronomic challenges and manageable operational and economic risks, the local processing of tomatoes has shown enormous potential to be profitable. Locally-produced paste can compete with imported brands where the right pricing structures for sourcing raw materials from farmers have been introduced.

Recommendation

Government incentives that protect the segment from controllable shocks, a culture of high quality standards, and effective marketing and distribution strategies, can open up the segment, making it another viable contributor to national output.

Cited Works

Akosah, N. K. (2014) Macroeconomic Implications of High Import Demand In Ghana. US Open Economics Journal Vol. 1, No. 1, pp. 1 – 31.

Aryeetey, E. (2006) ISSER-Merchant Bank Development Seminar Series. [Online] Available from: http://www.ghanaweb.com/GhanaHomePage/election2008/artikel.php?ID=101256. [Accessed 25 November 2015].

Auvillain, M. and Liberti, S. (2014) The Dark Side of Italian Tomato. Aljazeera [Online] Available from: http://webapps.aljazeera.net/aje/custom/2014/italiantomato/index.html [Accessed 29 November 2015].

Clottey, V. A., Karbo N., and Gyasi, K., O. (2009) The Tomato Industry in Northern Ghana: Production Constraints And Strategies To Improve Competitiveness. African Journal of Food Agriculture Nutrition and Development. 9(6): 1436-1451.

Ghana Investment Promotion Center (2015) Investing in Ghana's Agricultural & Agro-Processing Industry. [Online] Available from: http://www.gipcghana.com/invest-in-ghana/sectors/agriculture-agro-processing/investing-in-this-sector.html [Accessed 15 November 2015] Ghana: GIPC.

Ghana Statistical Service (2015) Revised Gross Domestic Product 2014. [Online] Available from: http://www.statsghana.gov.gh/docfiles/GDP/GDP2015/Revised_Annual_GDP2014_Jan2015.pdf [Accessed 5 December 2015].

Ghilotti, D. (2015) Ghana's authorities visit tomato plants in Parma. Agra-net, Food News. [Online]. Available from: https://www.agra-net.com/agra/foodnews/tomato-products/paste/ghana-s-authorities-visit-tomato-plants-in-parma-485618.htm [Accessed 25 November 2015].

Glover, B. Lack of market worries Upper East tomato farmers. The Daily Graphic of 26 March, 2007a; 150007: 28.

International Monetary Fund (2015) Ghana Request for a Three-Year Arrangement Under The Extended Credit Facility—Debt Sustainability Analysis. [Online] Available from: https://www.imf.org/external/pubs/ft/dsa/pdf/2015/dsacr15103.pdf [Accessed 1 December 2015]

Issah, M. (2007) Right To Food Of Tomato And Poultry Farmers. [Online] Available from: http://germanwatch.org/handel/ffm-ghana.pdf [Accessed 30 November 2015]

Cited Works

Minister of Trade and Industry (2006) Ghana Trade Policy. MoTI: Ghana

Ministry of Food and Agriculture (2013) Food Security Situation in Ghana. [Online] Available from: https://mofafoodsecurity.wordpress.com/food-security-situation-in-ghana/ [Accessed 30 November 2015] Ghana: MOFA.

Ministry of Food and Agriculture (2011). Agriculture in Ghana, Facts And Figures. MoTI: Ghana

Nielson (2014) Nielsen Emerging Market Insights, Country Snapshot Ghana. [Online]. Available from: http://www.nielsen.com/content/dam/nielsenglobal/ssa/docs/nielsen-emi-ghana-snapshot.pdf [Accessed 6 December 2015].

Oduro, A. D. and Offei, E. L. (2014) Investigating Ghana's Revealed Comparative Advantage in Agro-Processed Products. Modern Economy, 2014, 5, 384-390 Published Online April 2014.

Okudzeto, E., Mariki, W. A., Senu, S. S., Lal R. (2015) Africa Economic Outlook (Ghana). AfDB, OECD, UNDP (2015).

Parma for Expo (2015) Our city welcomes the President of the Republic of Ghana. Press Release 18 July 2015. [Online]. Available from: http://www.parmaforexpo.com/parmaforexpo-our-city-welcomes-the-president-of-the-republic-of-ghana/ [Accessed 27 November 2015] Parma, Italy.

Robinson, E. J. Z. and Kolavalli, L. S. (2010) The Case of Tomato in Ghana: Productivity Ghana Strategy Support Program (GSSP). GSSP Working Paper No. 19.

Saavedra Y., Dijkxhoorn, Y., Elings, A., Glover-Tay , J., Koomen I., Maden E., Nkansah G. and Obeng, P. (2014) Vegetables Business Opportunities in Ghana.

Tampoare G. B., Bob – Milliar, G. K. and Adazabra A. N. (2012) Analyzing the Economic Benefit of Fresh Tomato Production at the Tono Irrigation Scheme in Upper East Region of Ghana. Journal of Economics and Sustainable Development. ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.3, No.13, 2012.

Techiman Tomato Factory Starts Production (2014). Ghana Web. Available from: http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Techiman-Tomato-Factory-starts-production-337466 [Accessed 27 November 2015].

The World Bank (2015) Agriculture, value added (% of GDP). [Online] Available from: http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS/countries [Accessed 5 December 2015].

The World Bank (2015) Employment in agriculture (% of total employment). [Online] Available from: http://data.worldbank.org/indicator/SL.AGR.EMPL.ZS/countries?page=1 [Accessed 5 December 2015].

The World Bank (2015) Ease of Doing Business in Ghana. [Online] Available from: http://www.doingbusiness.org/data/exploreeconomies/ghana/ [Accessed 1 December 2015]

The World Bank (2015) Ease of Doing Business in Nigeria. [Online] Available from: http://www.doingbusiness.org/data/exploreeconomies/nigeria/ [Accessed 1 December 2015].

The World Bank (2015) Ghana (Overview). [Online] Available from: http://www.worldbank.org/en/country/ghana [Accessed 1 December 2015]
Wolter, D. (2008) Ghana – Seizing New Agribusiness Opportunities, OECD Development Centre: Paris.

World Economic Forum (2015) Africa Competitiveness Report, (2015). [Online] Available from: http://reports.weforum.org/africa-competitiveness-report-2015/structural-transformation/ [Accessed 5 December 2015].

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