



Department
for International
Development



Monitor **Deloitte.**

Developing Agricultural Investment Opportunities in Northern Ghana

Third Party Logistics

April 2016 – Final



Purpose of This Document

This document outlines the salient features of an investment opportunity for a third party logistics company transporting agricultural goods between the North and South of Ghana

<p>Objectives</p>	<ul style="list-style-type: none"> ● To present a greenfields investment opportunity for a third party logistics enterprise in Northern Ghana outlining: <ul style="list-style-type: none"> – The business environment in Ghana – The market potential for third party logistics services – A suitable business model for third party logistics services – The opportunity’s investment requirements and financial projections – Systemic, business model and financial constraints the opportunity is susceptible to, and potential mitigations for these constraints
<p>Intended Audience</p>	<ul style="list-style-type: none"> ● Market Development for Northern Ghana (MADE) team ● Regional and international investors who are looking for strategic or financial agribusiness investments in Sub-Saharan Africa (SSA) ● Agricultural private sector role players in Ghana
<p>Opportunity Description</p>	<ul style="list-style-type: none"> ● Provision of third party logistics services offering haulage-, warehousing- and goods handling services to mainly agribusinesses in the three Northern Regions of Ghana, who are looking to transport agricultural goods to the South of the country ● The required investment is Ghana Cedi (GHS) 4.91 million (m) investment and the business is expected to generate a net present value (NPV) of GHS 2.2m over a 5-year period with internal rate of return (IRR) of 40% and a payback period of 4 years

• **Executive Summary**

- Doing Business in Ghana
- Market Opportunity
- Business Model
- Financial Analysis
- Constraints and Mitigations
- Appendix

Executive Summary (1/2)

A good business environment in Ghana makes it easier to take advantage of the third party logistics investment opportunity with its tailored business model

Executive Summary	
Doing Business in Ghana	<ul style="list-style-type: none"> • Ghana's economy ranks among the top four largest economies in West Africa alongside Nigeria, Cameroon and Cote d'Ivoire and is SSA's 7th largest economy • Favourable macroeconomic conditions and the highest Ease of Doing Business ranking amongst its peers in the Economic Community of West African States (ECOWAS) positions Ghana well as an ideal investment destination in the region • Where investors are able to overcome infrastructural and interest rate constraints, opportunities in Ghana flourish due to the stable operating environment • The agricultural sector remains the largest employer in the economy imbuing it with a significant role in overall economic development; therefore various government policies have been developed to support it
Market Opportunity	<ul style="list-style-type: none"> • A third party logistics market opportunity exists based on the possibility of linking predominantly agricultural producers in the North of Ghana with consumers in the South; with a focus on product segments with the highest possibility of import substitution. The overall logistics market gap is valued at United States Dollar (USD) 157m • A scale of 525 metric ton (MT) monthly haulage has been selected for this opportunity in order to minimise the operational and fleet management costs associated with a larger scale • The ability to create market linkages between the North and South, the potential for a strong competitive position and high potential margins make this opportunity an attractive prospect
Business Model	<ul style="list-style-type: none"> • The potential business would engage in three key activities, namely, fleet management, maintenance, and warehousing activities • Through the professional handling of goods and reliable and timely delivery, this business has the potential to serve agribusinesses, consumer goods companies and other industries • The different customer segments are served through the provision of haulage and warehousing services • Eighty seven percent of the business's revenues will come from haulage services with warehousing making a 13% contribution to revenue; costs in the business are driven by fuel, consumables, direct labour, general operating expenses, and warehousing costs

Sources: Monitor Deloitte Analysis based on sources cited throughout the document

Executive Summary (2/2)

With an internal rate of return (IRR) of 40%, the investment opportunity is likely to generate solid returns provided that the identified constraints can be effectively mitigated

Executive Summary	
Financial Analysis	<ul style="list-style-type: none"> • A total investment requirement of GHS 4.91m is expected to generate a NPV of GHS 2.2m over the five year period with an IRR of 40% and a payback period of 4 years • Earnings before interest, tax, depreciation and amortisation (EBITDA) generates low growth during the period despite the high 17% revenue growth due to similar cost and revenue growth rates; cash generated is expected to cover working capital • Net margins are expected to steadily increase over the first five year period offering healthy after tax returns of 34% in year five • Under the existing cost structure the business is able to generate positive net cash flows from year one, which contributes to the relatively swift payback period of four years
Constraints and Mitigation	<ul style="list-style-type: none"> • Low demand from one customer group, namely small holder farmers (SHFs) and poor road infrastructure can be mitigated by targeted marketing activities, regular maintenance and providing support vehicles • Limited demand from other sectors and limited warehousing facilities can be mitigated by identifying anchor clients anywhere along the route and purchasing a small warehouse • The limited of availability of spare parts, fuel and the low quality of fuel at isolated customer premises can be mitigated by pre-purchasing spares and transporting fuel to sites • The prevalence of high accident rates can be mitigated by purchasing appropriate insurance, hiring professional drivers, and forming partnerships with relevant non governmental organisations (NGOs) • The high cost of local debt and working capital constraints can be mitigated by obtaining alternative funding sources and employing sound financial management techniques

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Doing Business in Ghana

Country Comparative

Ghana's economy ranks among the top four largest economies in West Africa alongside Nigeria, Cameroon and Cote d'Ivoire and is the 7th largest economy in sub-Saharan Africa

Senegal	
GDP* ¹	\$ 15 bn**
GDP per capita ¹	\$ 1067
ODA ² % GNI ³	6.7%
Competitiveness	110/140
SSA Rank (GDP)	16/47

Mali	
GDP ¹	\$ 12 bn
GDP per capita ¹	\$ 705
ODA ² % GNI ³	13.5%
Competitiveness	127/140
SSA Rank (GDP)	25/47

Cote d'Ivoire	
GDP ¹	\$ 34 bn
GDP per capita ¹	\$ 1545
ODA ² % GNI ³	4.2%
Competitiveness	91/140
SSA Rank (GDP)	8/47



Cameroon	
GDP ¹	\$ 32 bn
GDP per capita ¹	\$ 1275
ODA ² % GNI ³	2.5%
Competitiveness	114/140
SSA Rank (GDP)	10/47

Burkina Faso	
GDP ¹	\$ 12 bn
GDP per capita ¹	\$ 713
ODA ² % GNI ³	8.7%
Competitiveness	NA
SSA Rank (GDP)	24/47

Ghana	
GDP ¹	\$ 38 bn
GDP per capita ¹	\$ 1441
ODA ² % GNI ³	2.9%
Competitiveness	119/140
SSA Rank (GDP)	7/47

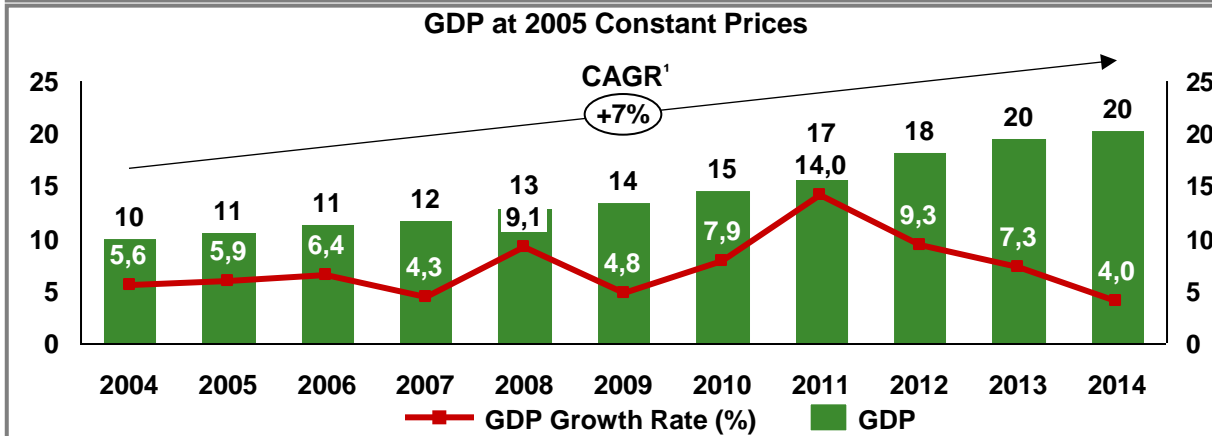
Nigeria	
GDP ¹	\$ 568 bn
GDP per capita ¹	\$ 3203
ODA ² % GNI ³	0.5%
Competitiveness	124/140
SSA Rank (GDP)	1/47

Note: *Gross Domestic Product (GDP); ** billion (bn); ¹GDP and GDP per Capita at current prices (USD dollars), ²Overseas Development Assistance (ODA), ³Gross National Income (GNI). Sources: World Economic Forum (WEF) Competitiveness Report 2015; World Bank (WB) Doing Business Report 2015; WB Development Indicators 2015; Monitor Deloitte Analysis

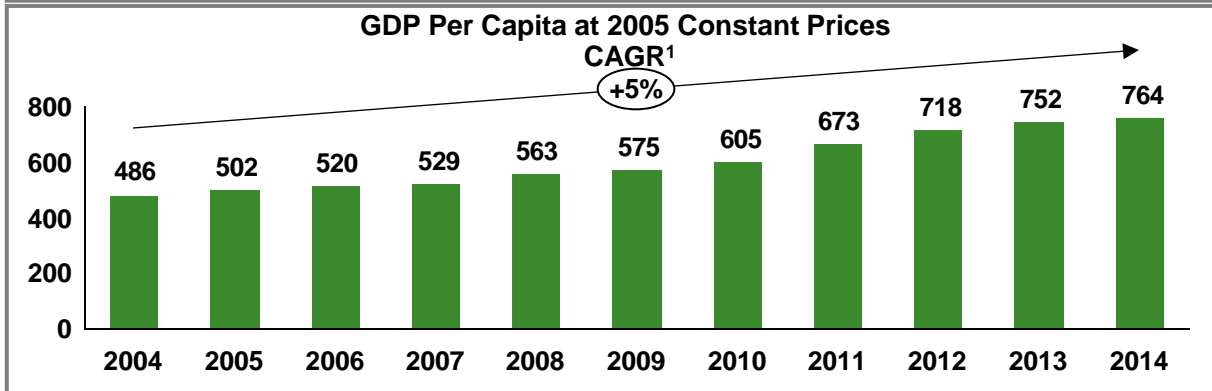
Ghana's Economic Landscape

Ghana's steady GDP growth and rising per capita income has contributed to increased buying power and a shift in consumer preferences towards premium tier goods and services

Ghana GDP (USD¹ Billions) and Growth, 2004-2014



Ghana GDP Per Capita, 2004-2014



Notes

- Ghana has experienced steady 7% growth in GDP over last decade
- Declines in growth rates in recent years can largely be attributed to the impact of the decline in commodity prices, predominantly gold and cocoa
- Nonetheless, incomes have been rising throughout the period providing a burgeoning middle class with newfound buying power
- The increased income levels have led to a change in consumer preferences in favour of premium tier, higher quality goods and services

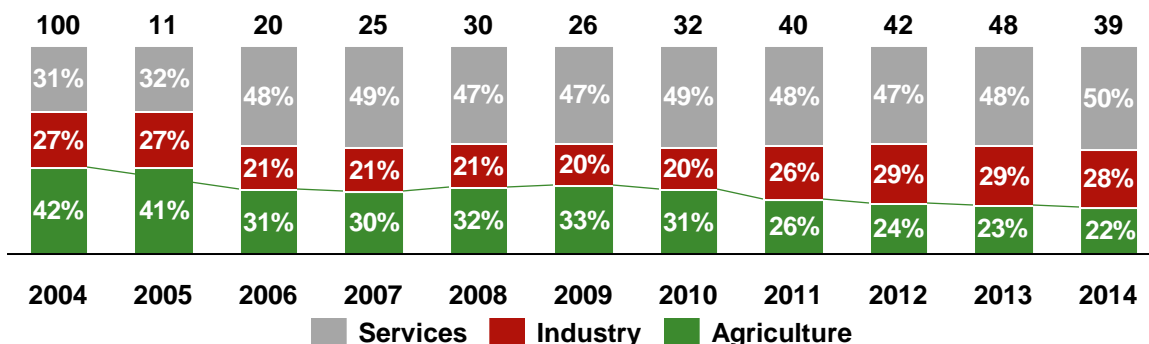
Note: ¹Compound Annual Growth Rate

Sources: Monitor Deloitte Analysis; World Bank Economic Indicators 2016; World Economic Outlook Database; World Bank Forecasts and Analysis, MADE Market Diagnostics, 2014

Despite its declining share of GDP, the agricultural sector remains the largest employer in the economy imbuing it with a significant role in overall economic development

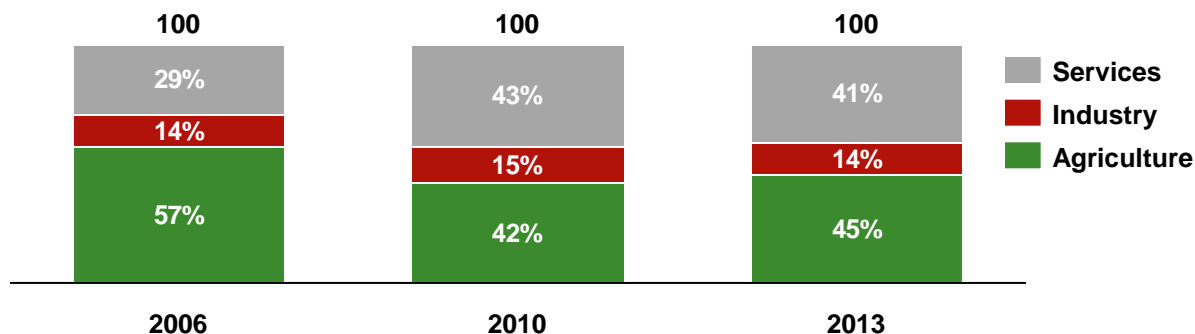
GDP Distribution by Sector, 2004-2014

GDP Distribution by Sector, Percent (2004-2014)



Employment Distribution by Sector, 2006-2013

Employment Distribution by Sector, 2006-2013



Notes

- Agriculture's share of GDP has been steadily declining over the period 2004-2014
- Contrary to the 7% growth rate of GDP over the period, the agricultural sector has contracted by 6%, predominantly driven by the economy's structural shift towards a more advanced economy
- Despite this structural shift, the agricultural sector has remained the largest employer
- The sector is characterised by a large amount of smallholder farmers producing on a small to medium scale

Doing Business in Ghana

Agriculture Sector Policy Support

In recognition of the importance of agriculture, the Government of Ghana has developed a set of policies intended to foster growth and development in the agricultural sector

Policy Summary

- Despite the agriculture sector's declining contribution to GDP over the past decade, the Government of Ghana (GoG) recognises the sector's role in achieving sustained economic growth and development in the country,
- Various policy objectives and investment incentives exist to foster agricultural led growth, many of which are geared towards attracting private sector investment in the sector

Policy Objectives

Ministry of Food and Agriculture



Republic of Ghana

Food and Agriculture Sector Development Policy
(FASDEP II)

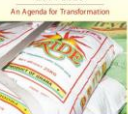
Food and Agriculture Sector Development Policy I and II

- Increasing growth in incomes
- Improving competitiveness of sector and better integrating it into domestic and international markets
- Promoting science and technology in food and agriculture development

Private Sector Development Strategy

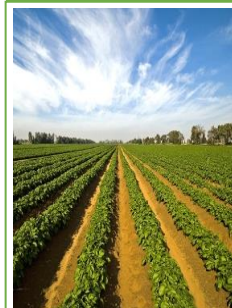
- Improving the productivity and efficiency of Ghana's economy and building a thriving private sector
- Increasing rural incomes by 20%, particularly in Northern and central Ghana, through more productive and efficient agriculture

THE COORDINATED PROGRAMME OF ECONOMIC AND SOCIAL DEVELOPMENT POLICIES 2014-2020



An Agenda for Transformation
PRESENTED BY
H.E. JOHN DRAMANI MANU
PRESIDENT OF THE REPUBLIC OF GHANA
TO THE 4th PARLIAMENT OF THE 4th REPUBLIC
DECEMBER 2014

Investment Incentives



Production

- Custom duty exemptions on imports of agricultural plant, machinery and equipment
- 5-10 year tax holidays on cash crop production
- Income tax exemptions for select farming activities and ~90% corporate tax exemptions for farmers outside of Accra



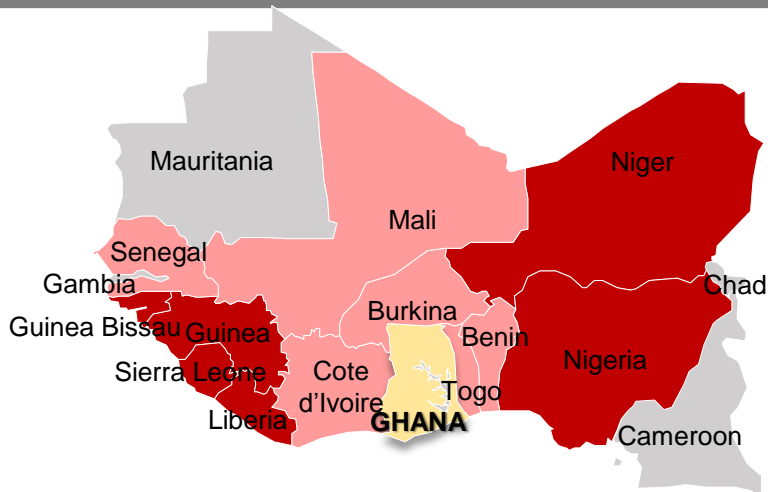
Agro-Processing

- 5-year tax holiday from the establishment of the business and a 3-year corporate tax freeze
- 50% tax rebates for agro-processing and manufacturing industries located in regional capitals and districts outside of Accra

Ease of Doing Business and FDI

Favourable macroeconomic conditions and the highest ease of doing business ranking in ECOWAS positions Ghana well as an ideal investment destination in the region

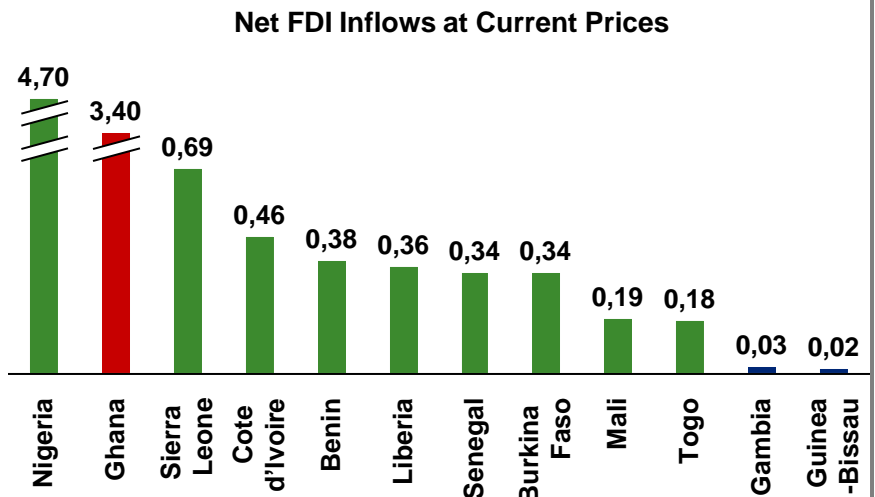
Ease of Doing Business Ranking, 2014



Ranking ¹	0 - 38	39 - 76	77 - 114	115 - 152	153 - 183
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- Ranked 114, Ghana has the most favourable Ease of Doing Business score amongst its peers in ECOWAS
- The ranking remains middle tier due to issues concerning contract enforceability, access to electricity and international trade

ECOWAS FDI Net Inflows (USD Billions), 2014








- Stable GDP growth, rising incomes and a good ease of doing business score all contribute to Ghana being the second largest attractor of foreign direct investment (FDI) among ECOWAS member states
- The amount of FDI Ghana is able to attract is particularly significant considering the size of Ghana's economy vis-à-vis that of Nigeria

Notes: ¹183 countries, globally, are ranked according to the relative favourability of their business environments.

Sources: Monitor Deloitte Analysis; World Bank Ease of Doing Business Study, World Bank Development Indicators, 2016

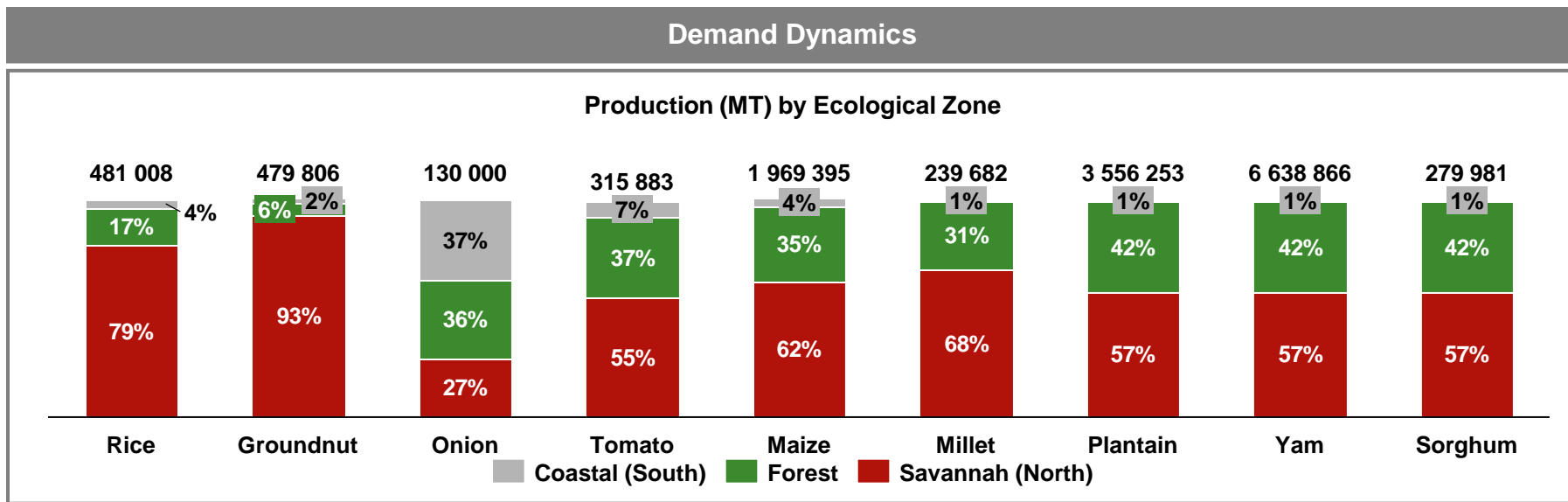
Operating Environment Assessment

Where investors are able to overcome infrastructural and interest rate constraints, opportunities in Ghana flourish due to the overall stable operating environment

Operating Environment Assessment	
Political and Legal 	<ul style="list-style-type: none"> • Ghana is a relatively peaceful and stable country owing to: <ul style="list-style-type: none"> - A track record of largely free and fair elections - A strong constitutional framework - A history of broad policy continuity
Economic 	<ul style="list-style-type: none"> • The country has a high prime lending rate driven by large budget deficits and a central bank with limited autonomy when it comes to monetary policy setting and implementation • Despite these structural weaknesses, local oil production is likely to reduce the risks of macroeconomic instability (due to reliance of oil imports) and provide a substantial boost to growth over the long term through associated export and fiscal revenues
Social 	<ul style="list-style-type: none"> • With rising incomes, demand for premium and processed food is increasing • If supply does not increase at the same pace, an increase in imports is likely • It is challenging to process food within Ghana due to deficient transport links and power constraints, particularly in rural areas
Technological 	<ul style="list-style-type: none"> • Though agricultural production remains highly labour intensive, GoG realises the need to drive agricultural productivity and growth through mechanised production • To this end the government has established agricultural mechanisation service centres nationally and distributed combined harvesters and tractors to SHFs • Ghana has relatively fast internet connectivity due to its connection to the high speed SEACOM cable
Agricultural Investment Incentives 	<ul style="list-style-type: none"> • Various policy objectives and investment incentives exist to foster growth of the sector and to attract private sector investment to industries in the sector • Incentives include three to ten year tax holiday's, specific tax exemptions and significant rebates and subsidies on machinery in key product sectors

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A third party logistics market opportunity exists based on the possibility of linking agricultural producers in the North of Ghana with consumers in the South



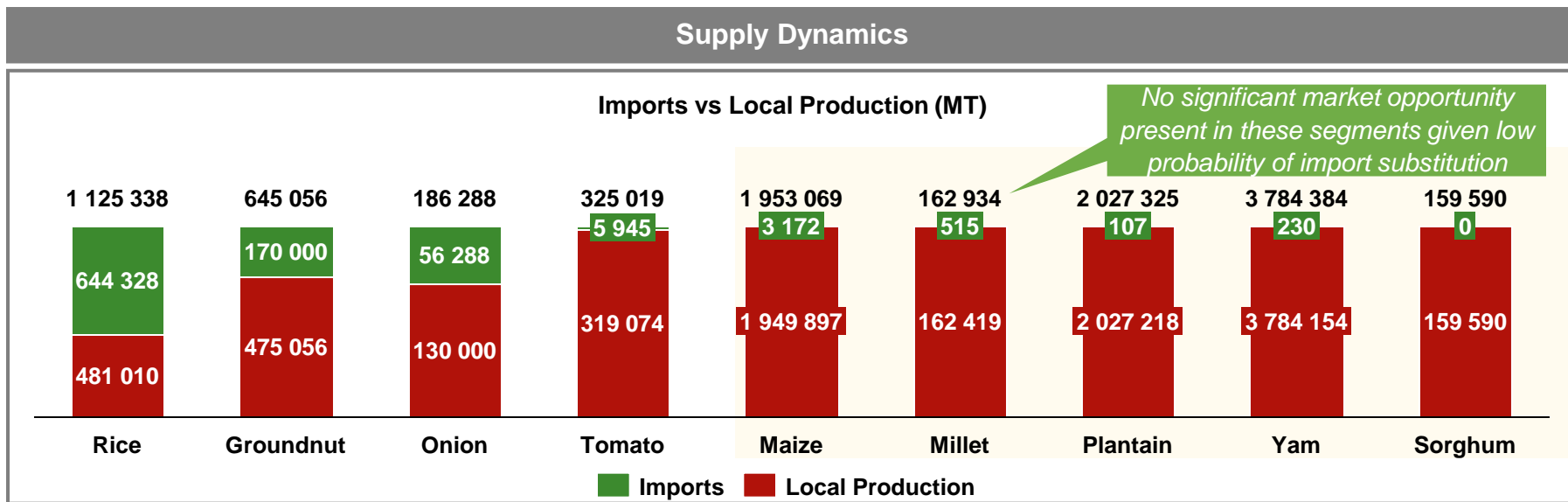
- Many agricultural products are grown in the North of Ghana including the vast majority of national staple crop production
- Total major crop production (both staple and other) in the North is estimated at ~ 14 012 011 MT per annum
- Despite the large level of production in the North only a small portion is sold to the large, well defined markets in the South predominantly due to poor linkages between market players
- In lieu of appropriate market linkages between the North and South, excess demand from the South is served by imports
- Demand for third party logistics is therefore driven by the desire to generate profits from creating a link between the producers in the North and consumers in the South

Sources: Monitor Deloitte Analysis; Ghana Living Standards Survey 2012; "Agriculture in Ghana", Ministry of Food and Agriculture (MoFA), 2012; FAOSTAT; Stakeholder Interviews 2016

Market Opportunity

Supply Dynamics

With a focus on product segments with the highest possibility of uptake given the potential for import substitution, a USD 157m potential logistics market exists



- Of the products produced in the North, rice, groundnut onion and tomatoes display significant import volumes
- These product segments would therefore be the basis for agricultural logistics services between the North and South
- Existing logistics service providers are predominantly small scale, 1-2 vehicle private individuals who operate informally, are generally unreliable and generate significant post-harvest transport losses due to poor handling
- A market opportunity therefore exists to provide professional third party logistics services
- Approximately 584¹ haulage vehicles would be required to serve the existing market of 876 561² MT
- At USD 90 per MT for a one-way trip between Tamale and Accra, the total value of potential logistics services is USD 157m

Notes: ¹Eight 35 MT trucks can transport 1000 MT a month; ²Rice, groundnut, sorghum, onion and tomato imports

Sources: Monitor Deloitte Analysis; Ghana Living Standards Survey 2012; "Agriculture in Ghana", Ministry of Food and Agriculture (MoFA), 2012; FAOSTAT; Stakeholder Interviews 2016

A scale of 525 MT monthly haulage has been selected for this opportunity in order to minimise the operational and fleet management costs associated with a larger scale

Drivers of Scale



Identified Demand

- Total identified market gap of 584 trucks transporting 876 000 MT has been identified
- Also, a vegetable aggregator in the South is actively seeking to source approximately 500MT of vegetables from the North, requiring haulage services



Economies of Scale

- Every GHS 5m invested in a commercial haulage business for the purpose of purchasing four commercial haulage trucks has the capacity to transport 525 MT a month between Tamale and Accra
- This requires 15 return trips per month



Market Structure

- Existing logistics operators are small scale and not able to transport large volumes reliably
- Their scale allows them to keep costs and prices down to a minimum due to a lack of overheads, but makes it difficult to compete on a larger scale



Complexity

- As the number of trucks increase, monitoring and evaluation activities increase which in turn increases the complexity and costs of fleet and logistics management

In light of these scale drivers a GHS 4.9m investment with a capacity of 525 MT per month has been selected for this opportunity to minimise business model complexity, and allow the business to compete favourably against existing informal market participants

Opportunity Attractiveness

The ability to create market linkages between the North and South, the potential for a strong competitive position and high potential margins are the opportunity's key strengths

Opportunity Attractiveness		
Key Criteria	Rating	Rationale
Overall Market Potential	Attractive	<ul style="list-style-type: none"> The large amount of production in the North of Ghana with minimal linkages to the markets in the South provides the platform for a third party logistics company to bridge the market gap with an overall USD 157m opportunity
Potential Margins	Very Attractive	<ul style="list-style-type: none"> The opportunity has the potential to generate healthy margins with gross margins at 58% and net margins at 34%
Potential Competitive Advantage	Attractive	<ul style="list-style-type: none"> New entrants that start with sufficient scale in the market are able to generate a competitive advantage based on their ability to offer a more reliable and professional logistics services than existing informal operators are able to provide
Incentives	Neutral	<ul style="list-style-type: none"> No direct incentives exist to attract private sector investment into logistics services, but as at March 2015 there was USD1.1 bn planned investment in road construction over the next five years
Policy Support	Unattractive	<ul style="list-style-type: none"> The National Transport Policy of 2008 outlines the country's objectives for improving the road network and creating linkages between the North and the South, but little has been done to improve roads since the policy was gazetted
Barriers to Entry	Unattractive	<ul style="list-style-type: none"> The high capital outlay required to purchase fleet is the main barrier to entry. It takes ~5 days to get vehicles registered, certified as roadworthy and ready for business; but formal registration with a transport association is not mandatory

Sources: Monitor Deloitte Analysis; Stakeholder Interviews 2016; Transport Network Analysis – Business Monitor International; World Bank Agribusiness Indicators: Ghana

Legend Attractive ■ ■ ■ ■ ■ Unattractive

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