FEED THE FUTURE
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Feed the Future Enabling Environment for Food Security

AgCLIR Ghana

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FROM THE AMERICAN PEOPLE

CONTENTS

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The Feed the Future Enabling Environment for Food Security project is a global mechanism designed to assist Feed the Future focused and aligned Missions as they address legal, institutional, and market constraints affecting food security. For more information, contact Lourdes Martinez Romero (COR) at lmartinezromero@usaid.gov or Nate Kline (COP) at nkline@fintrac.com.

LIST OF ACRONYMS

ACDI-VOCA	**Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance**
ADR	**Alternative dispute resolution (not court-connected)**
AESD	**Agricultural Engineering Services Directorate**
AgCLIR	**Agribusiness Commercial Legal and Institutional Reform**
AGI	**Association of Ghanaian Industries**
AGOA	**African Growth and Opportunity Act**
ALCO	**Abidjan-Lagos Corridor Organisation**
AMSECs	**Agricultural Mechanisation Services Enterprise Centres**
AGRA	**Alliance for a Green Revolution in Africa**
APS	**USAID's Agricultural Policy Support project**
ARAP	**Accountability, Rule of Law and Anti-Corruption Programme**
ATT	**USAID's Agricultural Technology Transfer project**
BAC	**Business Advisory Centre**
BDS	**Business Development Support**
BEE	**Business-enabling environment**
BEEP	**Ghana Business Enabling Programme**
CABI	**Centre for Agriculture and Bioscience International**
CCADR	**Court-connected alternative dispute resolution**
CCVR	**Customs Classification and Valuation Report**
CEDAW	**Convention on the Elimination of All Forms of Discrimination Against Women**
CET	**Common external tariff**
CIT	**Corporate income tax**
CMC	**Cocoa Marketing Company**
COCOBD	**Cocoa Board**
CORAF	**West and Central African Council for Agricultural Research**
CPI	**Crop Research Institute**
CSD	**Crop Services Directorate**
CRI	**Crops Research Institute**
CSIR	**Council for Scientific and Industrial Research**
CEPS	**Customs, Excise and Preventive Service**
CUBAG	**Customs Brokers Association of Ghana**
DBI	**World Bank's Doing Business Index**
DFID	**UK Department for International Development**

DOC	**Department of Cooperatives, Ministry of Employment and Labour Relations**
DUS	**Distinctness, Uniformity, Stability (test for seeds)**
DVLA	**Driver and Vehicle Licensing Authority**
EBA	**Enabling the Business of Agriculture index**
ECOWAS	**Economic Community of West African States**
EDAIF	**Export Development and Agricultural Investment Fund**
EPA	**Ghana's Environmental Protection Agency**
FAGE	**Federation of Associations of Ghanaian Exporters**
FAO	**Food and Agriculture Organization**
FASDEP	**Food and Agriculture Sector Development Policy**
FBO	**Farmer-based organizations**
FDA	**Food and Drugs Authority**
FFAG	**Freight-forwarders Association of Ghana**
GAB	**Ghana Association of Bankers**
GAPs	**Good agricultural practices**
GAWE	**Ghana Association of Women Entrepreneurs**
GHASALC	**Ghana Association of Savings and Loans Companies**
GAIDA	**Ghana Agri-Input Dealers Association**
GCAP	**Ghana Commercial Agriculture Project**
GCNet	**Ghana Community Network Services Limited**
GDP	**Gross domestic product**
GEPA	**Ghana Export Promotion Authority**
GEPP	**Ghana Electronic Payment Platform**
GGC	**Ghana Grains Council**
GHA	**Ghana Highway Authority**
GHAMFIN	**Ghana Microfinance Institutions Network**
GHS	Ghanaian cedi (currency code)
GIFF	**Ghana Institute of Freight Forwarders**
GIPC	**Ghana Investment Promotion Center**
GITC	**Ghana International Trade Commission**
GLC	**General Legal Council**
GLDB	**Grains and Legumes Development Board**
GIRSAL	**Ghana Incentive-based Risk-sharing Agricultural Lending**
GNI	**Gross national income**
GOG	**Government of Ghana**

GPHA	**Ghana Ports and Harbours Authority**
GRA	**Ghana Revenue Authority**
GROCTEU	**Ghana Root Crops and Tubers Export Union**
GSA	**Ghana Standards Authority**
GSID	**Ghana Seed Inspection and Certification Division**
GSS	**Ghana Statistical Service**
G2G	**Government-to-government**
HAACP	**Organic and hazard analysis and critical control points**
HDI	**Human Development Index**
ICT	**Information and communications technology**
IFAD	**International Fund for Agricultural Development**
IFDC	**International Fertilizer Development Center**
IFPRI	**International Food Policy Research Institute**
IITA	**International Institute of Tropical Agriculture**
IGF	**Internally generated funds**
ILO	**International Labour Organization**
IMF	**International Monetary Fund**
IP	**Intellectual property**
ISTA	**International Seed Testing Association**
JTI	**Judicial Training Institute**
LBCs	**Licensed buying companies (for cocoa)**
LPI	**World Bank's Logistics Performance Index**
M&E	**Monitoring and evaluation**
MCC	**Millennium Challenge Corporation**
MDG1	**Millennium Development Goals**
METASIP	**Medium Term Agricultural Sector Development Plan (2010–2015)**
MFIs	**Microfinance institutions**
MOF	**Ministry of Finance**
MOFA	**Ministry of Forestry and Agriculture**
MOJAG	**Ministry of Justice and Attorney General**
MOTI	**Ministry of Trade and Industry**
MT	**Metric ton**
NAAMSECO	**National Association of Agric Mechanisation Service Centre Operators**
NADMO	**National Disaster Management Organization**
NAFCO	**National Buffer Stock Company**

NASTAG	**National Seed Trade Association of Ghana**
NBSSI	**National Board for Small Scale Industries**
NES	**National Export Strategy for the Non-traditional Sector (2012–2016)**
NGO	**Nongovernmental organization**
NHIL	**National Health Insurance Levy**
NPK	**Nitrogen, phosphorous, and potassium (content in fertilizer)**
NTFC	**National Trade Facilitation Committee**
NVRRC	**National Variety Release and Registration Committee**
OECD	**Organisation for Economic Co-operation Development**
OPVs	**Open-pollinated varieties (of seed)**
PAARS	**Pre-Arrival Assessment Reporting System (Ghana Single Window)**
PEF	**Private Enterprise Foundation**
PFRD	**Pesticide and Fertilizer Regulatory Division**
PPMED	**Policy, Planning, Monitoring and Evaluation Division of MOFA**
PPP	**Public-private partnership**
PPRC	**Producer Price Review Committee (for cocoa)**
PPRSD	**Plant Protection and Regulatory Services Directorate of the MOFA**
PVP	**Plant variety protection**
RGD	**Registrar General's Department**
SADA	**Savannah Accelerated Development Authority**
SARI	**Savannah Agricultural Research Institute**
SEEDPAG	**Seed Producers Association of Ghana**
SMEs	**Small and medium enterprises**
SMTDP	**Sector Medium Term Development Plan 2014–2017(MOT)**
SPEG	**Sea-Freight Pineapple Exporters of Ghana**
SRI	**Soil Research Institute**
STAAC	**Strengthening Action Against Corruption**
SSA	**Sub-Saharan Africa**
SRID	**Statistics, Research, and Information Directorate**
TFA	**WTO's Trade Facilitation Agreement**
TIN	**Taxpayer identification number**
TRAQUE	**Trade Related Assistance and Quality Enabling Programme**
TRIPS	**WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights**
TVRC	**Technical and Variety Release Committee**
UNCITRAL	**United Nations Commission on International Trade Law**

UNCTAD	**United Nations Conference on Trade and Development**
UNDP	**United Nations Development Programme**
UNIDO	**United Nations Industrial Development Organization**
UPOV	**International Union for the Protection of New Varieties of Plants**
USAID	**U.S. Agency for International Development**
VAT	**Value-added tax**
VCR	**Value-cost ratio**
VCU	**Value for Cultivation and Use (test for seeds)**
VFRS	**VAT Flat Rate Scheme**
WAFP	**IFDC's West Africa Fertilizer Program**
WASP	**USAID West Africa Seed Program**
WATH	**West Africa Trade Hub**
WTO	**World Trade Organization**

EXECUTIVE SUMMARY

This report addresses the legal, institutional, and social environment for doing business in Ghana's agricultural sector. Through close examination of agriculture-related policies, laws, institutions, and social dynamics, this report aims to inform strategies and decisions by government institutions, donors, nongovernmental organizations (NGOs), the private sector, and others with respect to developing agricultural enterprise and economic growth. From March 27 to April 7, 2017, a cross-disciplinary team of consultants convened in Ghana to conduct interviews across the agricultural sector. The team met with approximately 200 national and local officials; farmers and their associations; small, medium, and large agricultural enterprises; business associations; think tanks and other NGOs; educational and research institutions; the banking, lending, and investment community; donor representatives; and many others. Interviews took place in and around Accra, Kumasi, and Tamale.

This diagnostic culminated in a roundtable presentation and discussion in Accra on April 7, 2017, attended by more than 70 stakeholders. At the roundtable, team members introduced their preliminary observations, which were subjected to feedback and elaboration from the participants. This input helped shape the recommendations of the team, found in this report.

GHANA'S AGRICULTURAL ENABLING ENVIRONMENT

Often touted as a stronghold for good governance in a traditionally fraught region, Ghana boasts many stabilizing factors that should encourage agriculture-led growth. Over the past 25 years, Ghana has had relatively peaceful transitions of power, through democratic elections perceived to be free and fair. Firms and farms identified the political stability and ensuing policy stability as key to Ghana's sound investment climate; political predictability helps investors to better estimate likely returns on investment. Ghana also boasts a diverse economy with abundant high-value commodities, including gold, oil, diamonds, and cocoa, as well as technology products and services.

Nonetheless, for the private sector in agriculture, performance has been mixed. According to the Policy, Planning, Monitoring and Evaluation Division (PPMED) of the Ministry of Forestry and Agriculture (MOFA), the overall growth rate for agriculture declined from 7.8 percent in 2008 to 2.4 percent in 2016. While the forestry and cocoa subsectors account for some of the decline, PPMED attributed most of the decline to other food crops. Prices for seed and other agricultural inputs have been rising, and the cost of finance skyrocketed between December 2011 and March 2017 as the policy interest rate increased from 12.5 percent to 25.5 percent, squeezing margins.

Farmers also face increasing challenges related to climate change. Agriculture in Ghana is primarily rain-fed, and lower overall rainfall and a later onset of the rainy season creates unpredictability and increases losses during production. Small-scale farmers lack proper on-farm storage facilities, and higher quality off-farm storage is unaffordable for most. With very little value-added processing, farmers often must sell at harvest when prices are lowest or suffer high postharvest losses because of improper storage.

To promote growth of the agricultural sector in a manner that helps mitigate likely risks, there is strong need for capital investments to address climate change and improve roads, energy infrastructure, storage, and agro-processing. Since 2008, a substantial portion of the MOFA budget has been spent on a high-cost fertilizer subsidy that prioritizes public investment in subsidized production. The new administration of President Nana Akufo-Addo has committed to tackling fiscal issues and increasing investment in agriculture. It is left to be seen if the new government's signature agricultural initiative, Planting for Food and Jobs, can follow through on that promise and deliver genuine transformation of the agricultural sector.

Starting a Business. Starting an agricultural business in Ghana is simple, straightforward, and low-cost, especially in comparison to the average in sub-Saharan Africa. Little data exists to indicate that business formation procedures pose a meaningful barrier to market entry. The time and procedures required to start a formal business are not overly burdensome and the costs, at 19.7 percent of gross national income per capita, is relatively low.

However, when starting a business located in rural Ghana, especially in Northern Ghana, costs relative to household income increases dramatically. Costs to start a business in the economically depressed north exceed 50 percent of the median household income. Furthermore, access to requisite government services and business service providers is lacking, which increases the burdens of launching a formal firm or farm.

In fact, there are few incentives for establishing a formal business, for two reasons. First, few government support schemes require formal registration for firms or farms. Second, access to finance—often a major driver for business registration—remains out of reach for most formal agricultural firms in Ghana, providing little push for registration.

Skills and business training represent a significant barrier to growth in the agricultural sector. Paired with a small business lending program, agricultural enterprise support can serve as a leverage point to encourage increased formality and stronger agricultural entrepreneurship in underserved regions.

Obtaining Seed. The seed industry in Ghana has been slow to develop since the parastatal Ghana Seed Company was privatized in 1989—in fact, slower than peer countries under similar circumstances. The seed sector in Ghana is dominated by small-scale seed growers, many of whom began as contract growers for the Ghana Seed Company in the 1980s, source foundation seed from government institutions, and process and store their certified seed lots using government facilities. The cost of certified seed, which is controlled by committee, hovers at around three to four times the cost of grain for open-pollinated varieties (OPVs) and six times the grain price for hybrid varieties.

With a new seed law and the anticipated final adoption of new seed regulations by the summer of 2017, the legal framework for a modern seed sector that is aligned with Ghana's regional commitments to the Economic Community of West African States (ECOWAS) will largely be in place.[1] In addition, an emerging group of 10–15 small seed companies have begun venturing into outgrower schemes, foundation seed production, branding, and even breeding. However, the industry faces several challenges that may still limit its development in the coming years, not least of which is a skepticism on the part of government institutions regarding private sector capacity and trustworthiness. How the government and development partners react to and support development of the private seed sector in the coming years will have a substantial impact on the structure and strength of the industry, as well as access to and affordability of modern technologies for farmers.

Obtaining Fertilizer. Fertilizer is a key input in agricultural production for increasing the productivity of small, medium, and large farms. Fertilizer use has historically been low in Ghana, particularly outside of the cocoa subsector. Following agricultural product and input price hikes in 2007–08, the government of Ghana decided to implement a fertilizer subsidy program, targeting maize, rice, soybeans, millet, and sorghum.

The regulation of fertilizer registration is clear and implemented impartially, though some national regulations are inconsistent with regional trade commitments. PPRSD, the Plant Protection and Regulatory Services Directorate of MOFA, is the lead technical agency in registering fertilizer products, issuing permits of fertilizer imports, testing and laboratory inspection of fertilizer products, and undertaking field trials to determine the efficacy of new fertilizer formulations. However, PPRSD remains under-staffed and under-equipped and has only two inspectors per region.[2]

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[1] A proposed plant variety protection bill also remains pending before Ghana's Parliament.

[2] Ansah-Amprofi (IFDC, 2016) reported only 30 inspectors in 10 regions in mid-2016, with 10 at the PPRSD head office and 20 in the regions. A MOFA official reported 35–40 inspectors. Ansah-Amprofi notes that there should be

Moreover, the private sector views the costs of fertilizer testing and registration as onerous. Private sector actors comply with the requirement to test new imports in laboratories and field trials, even when modifications to existing NPK (nitrogen, phosphorous, and potassium) formulations are marginal, but they view these procedures as excessive.

Supporting institutions provide some soil mapping and research, but resource constraints limit the completeness and efficacy of this critical function.

Promoting Mechanization. An estimated 6,500–7,500 tractors exist in Ghana, but only about half of them are operational.[3] Most are used for land preparation, and also for some transport inputs and products. There are not enough tractors: the estimated deficit is at least 5,000 units.

Virtually no regulations exist that are specific to importing agricultural machinery, so imports are excessively burdened. Tractors represent the largest share of agricultural machinery imports. Combine harvesters are less prevalent, representing 16 percent of tractor imports by volume during the last decade. Few regulations apply to agricultural machinery, unless intended for use on public roadways, in which case emissions testing is required.

Few institutions support the growth and uptake of agricultural mechanization in Ghana beyond agricultural mechanization centers.

Getting Credit. Farmers and downstream agricultural market system actors have little access to financing in Ghana. Notably, macroeconomic conditions present a considerable challenge in trying to diagnose weaknesses in credit markets, because profligate public spending has soaked up much of the available credit in Ghana. Inflationary pressures have required the Bank of Ghana to maintain high prime interest rates, set at 25.5 percent as of March 2017. This markedly high interest rate has cascading impact on the competitiveness of agricultural enterprises throughout Ghana.

In addition to these problems, Ghana's legal framework for secured finance has numerous significant gaps, known to the Bank of Ghana, that further limit access to collateral-based credit in Ghana. Explosive growth in mobile payment services and point-of-sale stations create real opportunity to decrease the cost of accessing finance in rural Ghana, and to utilize this technology to spur rural growth.

Paying Taxes. Ghana favors the agricultural sector through reduced tax rates and subsidies. Government officials and private companies have been aligned in openly dismissed the idea of taxation on agriculture. This reaction is no doubt in part because 80–85 percent of Ghana's agricultural sector is made up of small farmers. One the other hand, taken together, these policies and statements reflect a government that views agriculture as a sector of poverty, rather than a source of potential growth.

Ghana has made significant strides in modernizing its tax system during the past 5–10 years. In 2015 and 2016, Ghana introduced a major overhaul of tax legislation.

Tax institutions in Ghana are generally strong. The Ghana Revenue Authority provides a clear, well-maintained, and consumer-friendly web portal that offers key tax information to the public. Tax administration is generally simple, and taxes can be paid online or in person.

Accessing Markets and Transport. In Ghana, three main divisions influence access to markets and transport as well as livelihoods and socioeconomic status throughout the country: (1) urban/rural, (2)

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one inspector per district and 10 at HQ, which would make a total of 226. An annex table to the report shows that the 20 field inspectors in the 10 regions are supposed to cover 178 distributors and 1,400 registered retailers.

[3] A 2010 estimate of *functioning* tractors in Ghana by Fonteh for FAO put the figure at 1,736 units. From 2003–16, the government imported 3,456 tractors, with almost half of them being Indian brands (mainly Farmtrac but also some Mahindra tractors). An ACDI-VOCA census of tractors in northern Ghana in 2014 recorded 1,148 tractors.

north/south, and (3) male/female. Urban areas and southern areas have more advanced markets and transport conditions. In the agricultural sector especially, men have more access to information.

Ghana's agricultural sector is saddled with another significant dichotomy. One the one hand, commercial agribusinesses have precision production methods and modernized value chains, and sell to international markets. On the other hand, smallholder farmers use rudimentary methods to grow product for their own consumption or for sale in local markets. A more integrated policy framework is needed to address gaps in transportation, storage infrastructure, food safety, and market information for Ghana's agricultural market systems.

Trading Across Borders. In Ghana, one-third of exported goods are agricultural products. Ghana is the world's second largest producer of cocoa after neighboring Côte d'Ivoire; cocoa beans account for 60 percent of agricultural exports. The second largest export share (20 percent) consists of coconuts, Brazil nuts, and cashew nuts.[4] However, Ghana has a $3 billion negative trade balance.

The country primarily imports manufactured goods such as motor vehicles, construction materials, and petroleum, but 12 percent of imported goods are also agricultural products, including rice, meat, and sugar.

Ghana has recently acceded to several trade agreements and has promulgated new laws and regulations to facilitate easier cross-border trade. Regulatory reforms and implementation efforts have propelled Ghana to a higher ranking in key international indices on cross-border trade.[5] Ghana ranks first in West Africa and 9th out of 47 in sub-Saharan Africa. Ghana has also improved its standing in the Logistics Performance Index from 100th in 2014 to 88th in 2016. Thus, if Ghana stays the course in implementing its current laws and its international trade commitments, then it should continue to observe gains in trade.

Enforcing Contracts. Ghana has an adequate legal framework to support commercial transactions in the agricultural sector, and has in the last decade adopted regulations to establish commercial courts as well as an alternative dispute resolution (ADR) system.

Although court reforms have improved the judicial system in recent years, automation, case management, and court statistics need to continue improving. Moreover, corruption scandals have eroded the public's trust in the judiciary.

Nevertheless, Ghana has an adequate commercial dispute resolution system to build on. The commercial courts are perceived to function relatively well, and there are ADR options inside and outside the court system. Therefore, well-established organizations and services are in place to support contract enforcement—but in practice, Ghana seems lagging. The legal education system fails to meet the growing needs for legal services. According to the World Bank's Doing Business Index (DBI), Ghana ranks 114th out of 189 economies in enforcing contracts. However, this DBI ranking may not be particularly illuminating or definitive, because the DBI measures the time, cost, and process for pursuing a small claim in district court rather than in the commercial court.

Ghana is similarly middling in other law-related metrics. The World Justice Project's Rule of Law Index, which measures the experience of rule of law worldwide via household and expert surveys, ranks Ghana 44th out of 113 economies. Ghana performs relatively well with respect to civil justice (41/113) and regulatory enforcement (39/114), but not as well with respect to corruption (76/113).

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[4] WTO Statistical Database, available at: http://stat.wto.org/CountryProfiles/GH_e.htm

[5] The World Bank Enabling the Business of Agriculture (EBA) Index Markets indicator covers three topics: Producer organizations, plant protection, and agricultural trade. Producer organizations are discussed in the Enforcing Contracts chapter, and plant protection in this chapter. The last topic on trade and contractual relations is covered in the Enforcing Contracts chapter, as well as phytosanitary certificates, which are covered in this chapter.

TABLE OF RECOMMENDATIONS

Recommendation	AgCLIR Chapter	Cost to Implement	Time to Implement
PRIORITY RECOMMENDATION[6] In coordination with the National Board for Small Scale Industries (NBSSI), coordinate to offer business skills training and extension services for smallholder farmers in the Savannah Accelerated Development Authority (SADA) region. Offer small business loans at sub-market rates through a local financial institution for participants who successfully complete skills training and formalize operations.	Starting a Business	Low	1 – 3 years
Support capacity development of the commercial seed sector through capacity building and improved market linkages.	Obtaining Seeds	Medium	5 years
Increase capacity of the government of Ghana (GOG) to fulfill its role in effectively regulating the private seed sector and supporting farmer access to seed in accordance with National Seed Policy, National Seed Plan, and the Plants and Fertilizer Act, 2010 (the Act) and its implementing regulations.	Obtaining Seeds	Medium	1 – 2 years
Develop a multi-year strategy for the fertilizer subsidy program, with a clear exit plan. Strengthen monitoring and evaluation (M&E) of the program to provide empirically based input into the design and implementation of the program in subsequent years. Monitor the E-Soko subsidy registration and tracking system closely.	Obtaining Fertilizer	High	5 years
Strengthen the capacity of PPRSD to perform its mandated duties of fertilizer testing, field trials of fertilizer formulations on crops, fertilizer registration and licensing, and inspecting fertilizer in distribution systems and at points of storage and sale. MOFA should explore options for promoting private testing and inspection of fertilizer under PPRSD supervision.	Obtaining Fertilizer	Medium	3 – 5 years
Help expand soil testing throughout Ghana. Testing and analysis of soil samples is critically important for improving fertilizer targeting to different crops and soil conditions.	Obtaining Fertilizer	High	3 – 5 years

[6] Priority recommendations are identified based upon a lower than average estimated cost to implement the proposed recommendation, and a relatively brief timetable for the recommendation to achieve its desired impact. Lowest-cost recommendations with the shortest timeframe for reform are identified as priority reform recommendations.

Recommendation	AgCLIR Chapter	Cost to Implement	Time to Implement
Discontinue MOFA tractor import programs. Provide a positive enabling environment for private importers, distributors, and service providers to grow. Assist the private sector, where deemed appropriate, to provide training of mechanics and operators. Develop a tractor and agricultural machinery certification protocol, along with guidelines for certification of operators and mechanics.	Promoting Mechanization	Medium	2 years
Evaluate the recent performance and profitability of Agricultural Mechanisation Services Enterprise Centres (AMSECs) and, pending probable findings, be willing to allocate more resources to hiring and posting trainers and master mechanics to support the development of a reliable private sector tractor service capacity.	Promoting Mechanization	Medium	5 years
Based on the excellent research of the International Food Policy Research Institute (IFPRI) and the Food and Agriculture Organization (FAO), develop an agricultural mechanization strategy and action plan that supports the emergence of private sector-led importation, distribution, after-sales service and maintenance/repair, and custom hire tractor service capacities.	Promoting Mechanization	Low	3 – 4 years
Engage the Bank of Ghana, Ministry of Finance, the Ghana Microfinance Institutions Network (GHAMFIN), the Ghana Association of Bankers (GAB), the credit bureaus, and other industry associations to gauge stakeholder interests and concerns regarding e-money platform data for purposes of credit reporting.	Getting Credit	Low	2 years
Conduct a market analysis to gauge potential for cross-border mobile wallet services to build the technology infrastructure for entrepreneurs in the SADA region in order to expand economic activities servicing the high-value cross-border livestock trade along the corridor through Ghana. Build capacity for livestock service centers in northern Ghana to channel encroaching livestock transit routes, spur regional growth in SADA, and address growing land use tensions caused by informal livestock transit.	Getting Credit	Medium	2 – 5 years
PRIORITY RECOMMENDATION Repeal the new policy that suspends tax exemptions, or at a minimum provide relief for small and medium-sized businesses, until the review of existing exemptions is complete.	Paying Taxes	Low	>1 year
Improve and enforce food safety standards in domestic value chains.	Accessing Markets & Transport	Medium	+5 years

Recommendation	AgCLIR Chapter	Cost to Implement	Time to Implement
Improve conditions and ensure regular maintenance of feeder roads.	Accessing Markets & Transport	High	+ 5 years
Increase access to agronomic and market information for female value chain actors.	Accessing Markets & Transport	Low	+5 years
PRIORITY RECOMMENDATION Conduct a release time study for the Port of Tema.	Trading Across Borders	Low	1 year
PRIORITY RECOMMENDATION Conduct a checkpoint verification study for agricultural goods along the major trade corridors.	Trading Across Borders	Low	1 year
Review and expand the legal education system.	Enforcing Contracts	Medium	3 – 5 years
PRIORITY RECOMMENDATION Expand women's access to justice in commercial disputes.	Enforcing Contracts	Low	1 – 3 years

INTRODUCTION

This report addresses the legal, institutional, and social environment for doing business in Ghana's agricultural sector. Through close examination of agriculture-related policies, laws, institutions, and social dynamics, this report aims to inform strategies and decisions by government institutions, donors, nongovernmental organizations (NGOs), the private sector, and others with respect to developing agricultural enterprise and economic growth generally. The use of this document is intended to be multifaceted: it can be accessed as a foundation for developing agricultural policy, a framework for donor intervention, a substantive resource for future projects, a benchmark for assessing change, a tool for academic instruction, and, most immediately, a "jumping off point" for stakeholder discussion and consensus-building.

Since 2008, the Agribusiness Commercial, Legal, and Institutional Reform (AgCLIR) diagnostic has brought greater clarity and understanding to the environment for doing business in the agricultural sectors of more than 15 countries. The methodology incorporates knowledge gained from extensive field-based analysis, along with in-depth, comparative perspectives solicited from more than 60 public- and private-sector experts in agricultural regulation, markets, finance, and business.

Notably, this report represents the first time that the AgCLIR diagnostic has been repeated in a country, as Ghana was the first country to receive an AgCLIR assessment back in 2008. From March 27 to April 7, 2017, a cross-disciplinary team of consultants convened in Ghana to conduct interviews across the agricultural sector. The team met with approximately 200 national and local officials; farmers and their associations; small, medium, and large agricultural enterprises; business associations; think tanks and other NGOs; educational and research institutions; the banking, lending, and investment community; donor representatives; and many others. Interviews took place in and around Accra, Kumasi, and Tamale. The AgCLIR diagnostic culminated in a roundtable presentation and discussion in Accra on April 7, 2017, attended by more than 70 stakeholders. At the roundtable, team members introduced their preliminary observations, which were then subjected to feedback and elaboration from the participants. This input helped shape the final conclusions of the team, which are found in this report.

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METHODOLOGY

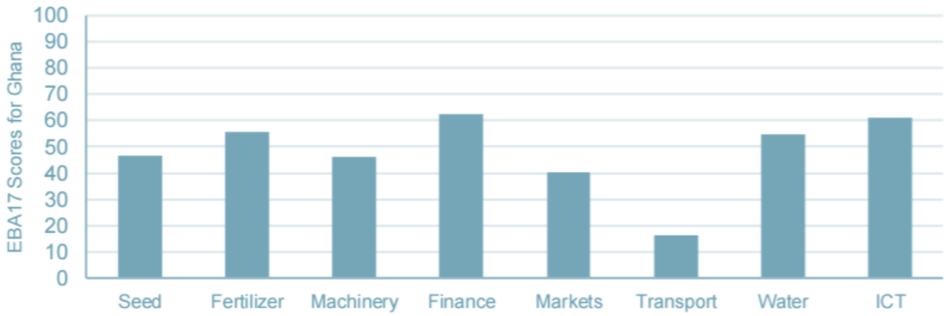
The AgCLIR methodology provides an in-depth qualitative assessment across four dimensions of the enabling environment for agriculture: specifically, the **legal framework, implementing institutions, supporting institutions, and social dynamics** that govern economic behavior in the agricultural market system. In order to develop 360-degree view of market dynamics, AgCLIR findings are based on (1) a thorough review of the extant policy, legal, and regulatory framework and (2) interviews with key stakeholders throughout the public and private sectors. The AgCLIR team analyzes enabling environment constraints to growth in the agricultural sector and provides actionable recommendations for reform across a wide range of regulatory areas.

Through this methodology, the AgCLIR analysis can illuminate the root causes behind agricultural sector data measured by benchmarking indices such as the World Bank's new Enabling the Business of Agriculture

(EBA) Index, as presented in *the Enabling the Business of Agriculture 2017* report (EBA report).[7] EBA measures the quality and efficiency of agricultural laws and regulations by examining key indicia of how the regulatory environment is "working," such as the quality of the legal and regulatory framework; the number of days it takes to complete various regulatory procedures (for example, seed certification); and the costs of the procedures in relation to per-capita income. The EBA report provides comparative data from 62 countries, including Ghana. For each of the eight topic areas, the World Bank ranks each economy in relation to the others, thereby demonstrating how, to this limited degree, their respective environments compare to others throughout the world. In addition, the countries are scored on each topic in relation to their "distance from the frontier" or the deviation of their legal and regulatory environment from a good practice ideal.

In the most recent EBA report, issued in January 2017, Ghana presents an example of a relatively strong country in a relatively weak region. Overall, the EBA Index indicates that Ghana has an overall favorable enabling environment for agriculture. However, the relative comparison of the regulatory framework for seed, machinery, markets, and transport indicates performance gaps in an otherwise strong regulatory performance (see Figure 1).

Figure 1: 2017 EBA Scores for Ghana



The EBA scores and other agricultural data sources pinpoint potential bottlenecks in the enabling environment for agriculture, but without further analysis, the underlying cause of a country's poor performance remains unclear. By digging deeper into the qualitative aspects of the agriculture-enabling environment, the AgCLIR assessment can provide clear analysis and actionable recommendations for systemic reforms that target not only the scores but also the broader enabling environment challenges they reflect.

In light of the introduction of the EBA and its 2017 comparative findings across 62 countries, the AgCLIR methodology used for this assessment was expanded and tailored to directly address six of the eight topic areas covered by the EBA.[8] First, this AgCLIR diagnostic contains three new chapters that focus exclusively on seed, fertilizer, and mechanization to shed light on these important agricultural inputs and dive deeper into the scores from the EBA topics on the same subjects. In addition, the traditional AgCLIR methodology for the chapters Starting a Business, Getting Credit, and Trading Across Borders has been adapted to incorporate specific regulations and institutional procedures measured by EBA. Finally, the AgCLIR chapter on Accessing Marketing Infrastructure has been retitled Accessing Markets and Transport to better reflect the EBA focus on transportation.

Throughout the chapters of this report, the analysis references EBA and other benchmarking indices where relevant, and places these data points in the context of broader enabling environment factors. Our goal is to ensure that users of this report understand what these indices measure, what their scores represent, and how to effectively use them as a tool to inform reforms.

[7] See World Bank, *Enabling the Business of Agriculture 2017* (2017), available at eba.worldbank.org.
[8] The two remaining topic areas, Water and ICT, which were first introduced in the 2017 EBA report, could not be incorporated into the current AgCLIR assessment but may be included in the future.

COUNTRY CONTEXT: AGRICULTURE IN GHANA

Since the first AgCLIR Ghana assessment in 2008, the enabling environment for agriculture in Ghana has changed significantly. Key laws and regulations have been overhauled in many of the topic areas covered by this report, resulting in a modernization of Ghana's legal and regulatory framework for agriculture and largely bringing its practices in line with regional and international commitments to harmonize policy. Most of the agribusinesses and trade associations with whom the team met spoke highly of Ghana as an attractive place to do agribusiness because of its political stability, low incidence of corruption, and comparatively low costs of doing business.

Nonetheless, certain challenges remain. According to the Policy, Planning, Monitoring and Evaluation Division (PPMED) of Ghana's Ministry of Forestry and Agriculture (MOFA), the overall growth rate for agriculture declined from 7.8 percent in 2008 to 2.4 percent in 2016. While the forestry and cocoa subsectors account for some of the decline, PPMED attributed most of the decline to other food crops. Prices for seed and other agricultural inputs have been rising. The cost of finance skyrocketed between December 2011 and March 2017 as the policy interest rate increased from 12.5 percent to 25.5 percent.

Farmers also face increasing challenges related to climate change. Agriculture in Ghana is primarily rain-fed, and lower overall rainfall and a later onset of the rainy season creates unpredictability and increases losses during production. Small-scale farmers lack proper on-farm storage facilities, and higher quality off-farm storage is unaffordable for most. With very little value-added processing, farmers often must sell at harvest when prices are lowest or suffer high postharvest losses due to improper storage.

To promote agricultural sector growth in a manner that helps to mitigate likely risks, there is strong need for capital investments to address climate change and improve roads, energy infrastructure, storage, and agro-processing. Since 2008, a substantial portion of the MOFA budget has been spent on a high-cost fertilizer subsidy that has prioritized public investment in subsidized production. The new administration of President Nana Akufo-Addo has committed to tackling fiscal issues and increasing investment in agriculture. It is left to be seen if the new government's signature agricultural initiative, Planting for Food and Jobs, can follow through on that promise and deliver genuine transformation of the agricultural sector (see box below).

Women

An estimated 38% of all women in Ghana work in agriculture. Although men oversee most primary agricultural production, women tend to fill the roles of unpaid household farm labor, small-scale processors, and market sellers. Customarily, land is held by men and farmed by the family. Women, who have little access to finance and lack basic agricultural training, handle the marketing. In the north, which is predominantly Muslim, women are restricted from owning cattle or participating as members in farming cooperatives that would put them on an equal footing with men. Women farmers lack access to information as cultural sensitivities make it impossible for them to access organizations and training opportunities led by men. Indeed, women farmers in Ghana are generally 17% less productive than male farmers, likely linked with poorer access to inputs and extension services.[9] Instead, women are often employed as day laborers to manually sort and bag seed lots. In the south, women's roles are more varied. For example, young women make up the majority of employees in agroprocessing facilities. Nonetheless, women are underrepresented in the ranks of agribusiness owners.

Generally, Ghana scores favorably on comparative indices tracking the disparate impact of laws and practices between men and women. Ghana's Constitution expressly recognizes equality of all citizens, and prohibits discrimination. Notably, equal treatment in Ghana's Constitution does not extend to the review of customary law, which is a valid source of law in Ghana. Of particular significance to agriculture, customary law governs land access and allocation for all lands held in customary title, which represents

[9] Africa Gender Equality Index 2015

the vast majority of land in Ghana. Women in Ghana have less certainty of customary land title compared to their male peers, which affects choices made by women producers. For example, women producers on customary titled land are less likely to allow land to lie fallow in Ghana, as customary land titles are frequently tied to specific land use descriptions.[10]

Youth

Youth in Ghana generally view farming as a livelihood for the poor and prefer other sectors, such as mining, that are viewed as more profitable. Young Ghanaians who invest in agriculture tend to focus on maize, poultry, and other subsectors and to avoid cocoa, which is viewed as having little economic opportunity because of the high level of government intervention in the market.

To attract more youth to agriculture, the GOG promotes farming through initiatives such as the Farmer of the Year Awards. Under the new Planting for Food and Jobs initiative, the GOG will recruit young graduates of agricultural universities for training as extension agents.

[10] Id.

Planting for Food and Jobs: A New Agricultural Policy Pathway?

In 2017 Ghana announced the launch of the Planting for Food and Jobs (PFJ) initiative, an agricultural sector growth strategy. The new initiative would focus public investments into 5 crops (maize, rice, soyabean, sorghum, and vegetables; maize and rice in the north, and vegetables such as tomato, pepper, and chili in peri-urban areas)). Conceptually, public investments into the following 5 pillars would help to crowd-in private sector investment for transformative growth.

- **Seed:** Currently, only 11% of producers use certified seed; the goal is to boost usage by providing a 50% subsidy.
- **Fertilizer:** Providing a 50% subsidy is aimed at impelling significant uptake by producers.
- **Marketing:** Aggregators will be assigned around the country to aggregate excess production. Production will be channeled into school feeding, military/prison rations, and National Buffer Stock Company (NAFCO) strategic stocks.
- **Extension:** The number of extension agents has dwindled to 2,400, creating downward pressure on technology transfer. MOFA estimates a need for 4,000 extension agents nationally. The administration will look at varying schemes for incentivizing youth to pursue extension careers.
- **E-agriculture:** Introducing new ICT applications to improve the delivery of the subsidy program. Beneficiaries will be biometrically registered by e-Soko based on size and location to help the government accurately pinpoint a farmer's needs and deliver with less waste.

Notably, the new initiative will have high standards that do not meet the needs of most farmers. For example, beneficiaries must meet certain conditions, such as owning more than 10 hectares (ha). Because the government is targeting 100 producers in each of 216 districts, the farm size has been decreased to 2–3ha.

Distribution of support will rely on district departments of agriculture. Half (50%) of the cost of inputs will be covered by the government, and the other 50% by the farmer. Half of the farmer's total obligation will be collected upfront with the remainder due at harvest.

Regarding seeds, the subsidy scheme will cover two types of seed. The government anticipates that producers will need 4,200 metric tons, but they have only 2,000 metric tons of OPVs. They will need to fill the gap with hybrids in registration. Producers must commit to a seed type to allow the government to properly forecast. The public tender gives quotas for particular districts.

For monitoring purposes, two directors are assigned per region. The project will be overseen by a National Technical Committee, Regional Technical Committees, and District Technical Committees.

The new subsidy program is expected to be implemented through direct government procurement of seed and fertilizer, storage in public warehouses, and distribution to beneficiaries by local government agricultural departments and extension agents. This mechanism disrupts commercial relationships that will be necessary to create a sustainable input industry.

Many agricultural departments and agencies have seen a sizable increase in their project budget allocations in 2017 to account for implementing the PFJ campaign. Yet it is unclear whether the GOG can, or will, fund PFJ given the current fiscal climate, or whether the government will seek to rely on development partners to pick up the cost. If the subsidy program continues beyond the first year, the subsidy program will need to evolve to include mechanisms to develop a private sector-led input industry and to provide the government with a clear exit strategy.

STARTING A BUSINESS

World Bank Ease of Doing Business: Starting a Business

Time (Men):14 days

Time (Women): 14 days

Cost (% income per capita): 19.7%

Number of Procedures (Men): 8

Number of Procedures (Women): 8

Paid-in Capital (% income per capita): 2.0%

Ranking: **110/192**

Starting an agricultural business in Ghana remains simple, straightforward, and relatively low-cost. Little evidence exists to demonstrate that the laws or regulations for launching a business in Ghana results in a meaningful barrier to market entry. As noted by the World Bank's Ease of Doing Business index, the processes and costs required to start a business in Ghana are not overly burdensome at 19.7% of gross national income (GNI) per capita, although in northern Ghana, this figure is considerably higher—exceeding 50% of the median household income.[11] Compared to the rest of the sub-Sahara, the total time, number of steps, and the cost relative to per capita GNI, Ghana does far better than the average. Perhaps more importantly, Ghana is a predictable, politically stable country with ample production of a diverse range of commodities and natural agricultural abundance, extensive water systems, and proximity to key high-value export markets.

The process for registering a business in Ghana is simple, if imperfect. For example, costs have increased during the last year because of elevated licensing fees. Also, the business registration process has ongoing operating inefficiencies, such as a web-based registration platform whose payment system flaws require in-person payment. Nevertheless, and overall, the procedures are published and accessible, easy to navigate, and the outcome of applications are predictable. As a practical matter, the savings generated by reducing the cost of a single permit or eliminating a single barrier rarely makes significant impact in the calculus of an entrepreneur who wants to start a business. Broadly speaking, Ghana remains a haven for business startup and growth in the region.

Despite the existence of a manageable formal registration system, the informal sector employs an estimated 88% of the population in Ghana, primarily composed of individuals engaging in micro-scale production, processing, trading, and providing other services.[12] According to our field research, agricultural businesses, formal and informal, have consistently reflected on whether to formalize business operations; the broad consensus noted that formality in Ghana makes sense only when needed to access local finance, scale operations, or access government support programs. In effect, informality is not only the norm, but reasonably so based upon a rational view from the perspective of an entrepreneur. This generally comports with research into determinants of formalization: sound business regulations that are actually enforced can increase the likelihood of formalization by 21–27%.[13] Of course at present, most small and medium-sized businesses are costed out of financial markets in Ghana, where prime interest

[11] The World Bank's Ease of Doing Business Index reports the costs of doing business as a percentage of Gross National Income per capita to demonstrate the burden relative to income distributed evenly. Of course, as in all countries, income is not distributed evenly. Particularly in the regions of northern Ghana, where income is the costs of doing business and the minimum paid-in capital requirements to start a business are significantly more onerous than for the average Ghanaian in Ashanteland or the Greater Accra Metropolitan Area.

[12] Ghana Statistical Service, "Ghana Living Standards Survey Round 6(GLSS-6)/Labour Force Report" (August 2014).

[13] De Andrade, Gustavo Henrique, Miriam Bruhn and David McKenzie, "A Helping Hand or the Long Arm of the Law? Experimental Evidence on what Governments can do to Formalize Firms," World Bank Economic Review (2014).

rates of 28–35% are the standard. Simply put, with rare exceptions, stakeholders reported little incentive to formalize a small-scale agricultural enterprise in Ghana.

LEGAL FRAMEWORK

Ghana maintains a generally sound legal framework for business that promotes growth and investment. Ghana's Constitution recognizes private property rights and protects those rights in a manner consistent with global best practices.[14] Ghana protects property from takings except by judicial process, and only for one of a prescribed set of public purposes, with fair compensation mandatory. The **Ghana Investment Promotion Centre Act, 2013 (Act 865)** further extends these protections to foreign investors, providing a guarantee against nationalization of foreign companies and establishing the right to expatriate profits, thus providing a sound basis for capital investment into Ghana. The agricultural policy framework in Ghana recognizes that agriculture is crucial to the strategy for alleviating poverty, and that smallholder farmers are the linchpin—since nearly 90% of Ghana's agricultural activity is in smallholder production.

A soon-to-be-launched policy initiative of the new administration, **Planting for Food and Jobs** (described above), will prioritize public investments through government investments in seed, fertilizer, extension services, marketing, and ICT services aimed at spurring private sector growth in maize, rice, soybeans, sorghum, and vegetables. Details of the new policy continue to emerge as the new policy has not launched, so this report will not provide deep coverage of the likely impacts. However the Ministry of Food and Agriculture representatives have indicated government focus on private sector engagement and investment in public and private distribution mechanisms. Furthermore, the agricultural sector is a high priority in the Government of Ghana's investment promotion strategy, and is therefore likely to receive specialized support from government and donor programs to help facilitate equity investment, with an emphasis on downstream added-value enterprises.

The legal framework provides ample business types to accommodate a wide variety of needs for agricultural enterprises and a simplified process for establishing a formal business. The legal framework enables a variety of private sector activity, with little overt intrusion or control mechanisms in developing private sector and non-governmental organizations. The legal framework for business formation establishes a business-friendly platform that facilitates investment and growth within the agricultural sector.

Business Forms, Cooperative Forms, and Registration

According to the company registry, on average approximately 15,000 new companies register annually in Ghana.[15] For Ghanaian businesses that elect to organize as formal companies, the processes and procedures required to register and launch a new business are straightforward and not particularly burdensome. Prior to initiating a business registration, an entrepreneur must determine the ideal business form for his or her intended activities. Ghana offers a variety of business types suited to a range of purposes, and a simple process for amending a business type should the strategic needs of the business require.

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[14] Ghana's case law also establishes fundamental constitutional protections from undue governmental control over an individual's pursuit of economic activity. For example, mandatory participation in a particular commodity association or cooperative society have been held to violated fundamental principles of economic freedom. See generally *Mensima and Others v. Attorney General and Others [1997–1998]*, referenced in Anku-Tsede, Olivia and Albert Amankwaa, "The Institutional and Regulatory Framework for Co-Operative Societies in Ghana: Implications for Credit Unions," *International Journal of Cooperative Studies* Vol. 4 No. 2 (2015), 18–26.

[15] The estimated number of agricultural sector firms was not readily available, but it was estimated that 20% of new business entrants were related to agricultural production or processing.

Seven primary business forms exist in Ghana. Three company forms offer limited liability for equity owners: a company limited by shares, a company limited by guarantee, and a limited liability partnership. Individuals comfortable with remaining personally responsible for all liabilities of their company may form an incorporated partnership, an unlimited company. The smallest companies consist of a single individual operating as a sole proprietorship, where the owner/operator is personally responsible for all liabilities of the company. Foreign companies registering a local entity may form an external company. The type of company form selected has its own tax implications, liability rules, and company governance obligations.

The **Companies Act 1963** (Act 179) establishes the framework for the entire lifecycle of most types of businesses in Ghana, as interpreted through an extensive body of common law. The Companies Act 1963 lays out various company types and establishes specific limitations. For example, the Companies Act 1963 prohibits partnerships from exceeding 20 partners, provides limitations on the transferability of private company shares, and other similar limits on formation. The Companies Act also governs the formation and registration process, corporate governance standards for the behavior of operating enterprises, and the liquidation, winding up, and dissolution of companies, public and private.

Beyond the traditional company types, between two and twenty individuals seeking to enter into shared expenses and shared rewards may enter into a partnership. Partnerships exist in two forms in Ghana, as established in the **Incorporated Private Partnerships Act, 1962** (Act 152) for traditional partnerships and the **Limited Liability Partnerships Act, 2012** (Act 743). Limited liability partnerships, relatively new in Ghana, are a blend between a traditional partnership—under which partners have joint and several liabilities for partnership actions—and a corporation, limiting liability among partners to the paid-in capital of the partnership and limiting liability for the negligence and misconduct of partners. The limited liability partnership provides the tax benefits of a partnership with the limited liability protections of a corporation. A limited liability partnership is its own entity, formed by filing the documents required under the Limited Liability Partnerships Act.

Any of the company types described above may be structured as a private company, which limits transfer of shares and limits the total number of shareholders to less than 50 (with an exception for employee ownership carved out from this rule). Private companies have less onerous disclosure requirements, although the limits on transferability of shares and the limitation on total number of shareholders may impede the scalability of an enterprise. But for most companies in Ghana, limited ownership structures would accommodate simple business models.

The legal and regulatory framework for registering a new business in Ghana remains among the simplest and straightforward in sub-Saharan Africa, sending the unambiguous signal that Ghana is open for new businesses. Consistent with that signal, Ghana has taken important steps over the past decade to streamline the business registration process. Although the overall depth or complexity of registration may vary based on the business type chosen, the various laws described above and their implementing regulations establish a fairly standard and routine process.

For the smallest companies organized as sole proprietorships, legal professionals have different views as to whether the legal framework mandates registration at the Registrar General's Department. Although registration may not be mandatory, sole proprietorships that wish to protect their trade names must register the name of their company with the Registrar General's Department (RGD) in accordance with the **Registration of Business Names Act, 1962 (Act 161)**. Registration of a business name with the RGD establishes enforceable rights to the name of the business and prevents formal duplication of a business name by another entrepreneur, and is highly recommended for businesses of all forms, including sole proprietors.

After a business name is searched and registered, a business must obtain a taxpayer identification number (TIN) with the Ghana Revenue Authority (GRA). TINs may be acquired in person at the main GRA headquarters in Accra within 4 days at the collocated offices at the RGD office in Accra, or any RGD regional office. TINs are supposed to be available through online application. However, entrepreneurs have reported challenges in using the online system, stating that obtaining a TIN still necessitated physical submission of an application at an RGD office. This can be uniquely burdensome for rural enterprises located a fair distance from Accra or the three regional RGD satellite offices in Kumasi, Secondi, and Tamale.

Within 2–5 days from receipt of a TIN and successful submission of an application for registration, the RGD will issue a certificate of business commencement that must be posted at the primary place of business. To properly complete the application, a company must name at least one shareholder, two directors, one company secretary, and an auditor. The auditor must provide a signed declaration indicating the intention to serve as the company's auditor. At this time, the business registrant must (a) pay a fee equal to .5% of the stated capital of the company, which the RGD collects this fee on behalf of the GRA, and (b) make payment into the National Health Insurance Levy (NHIL). Once this registration is completed, the RGD furnishes the business registrant with a Certificate of Incorporation and a Certificate to Commence Business. RGD registrations must be renewed annually.

Businesses that have foreign investors, once registered with the RGD, must also register with the Ghana Investment Promotion Center (GIPC) in accordance with the **Ghana Investment Promotion Centre Act, 2013 (Act 865)** (the GIPC Act). GIPC registration enables Ghana to register, catalogue, and connect new investors to known investment opportunities and investment incentives such as tax abatements and immigration quotas. Furthermore, GIPC registration also provides oversight to confirm payment of the minimum foreign capital requirements mandated by the Ghana Investment Promotion Act. GIPC registrations must be renewed every two years. Companies wholly owned by Ghanaians may also elect to register with the GIPC after completing registration with the RDG in order to access the same investment incentives that are available to foreign firms; this levels the playing field so that domestic Ghanaian businesses competing with foreign investments are not unfairly disadvantaged.

Depending on the primary business purpose of the enterprise, additional national-level licensing may be required. For example, firms seeking to import or distribute fertilizer and other agrochemicals must obtain a special permit from Ghana's Environmental Protection Agency (EPA). The EPA permitting process can take anywhere from 1–2 weeks to 1–2 months, depending on the EPA's workload and bandwidth. Additionally, within the seed sector, seed importation requires specialized permits from the Plant Protection and Regulatory Services Directorate (PPRSD); this permit must be obtained before operations can commence. These permits are discussed in greater detail in the Obtaining Fertilizer and Obtaining Seeds chapters in this report. However, it is important to note that these permitting procedures have direct bearing on the startup of agricultural businesses in Ghana.

Minimum paid-in capital. Ghana requires minimum levels of paid-in capital that must be deposited into a Ghanaian bank regulated by the Bank of Ghana. Wholly-owned Ghanaian companies must provide 500 Ghanaian cedis (currency sign Gh¢, currency code GHS[16]), which is a fairly minimal capital requirement—at the time of this report, equivalent to about US$111. Foreign investors must make a cash deposit equal to or greater than (a) US$200,000 for a business structured as a joint venture in which a Ghanaian national maintains at least a 10% equity stake, (b) US$500,000 for firms that are 100% foreign owned, and (c) not less than US$1,000,000 for foreign-owned trading enterprises.[17]

[16] Some cite GH₵ or GH¢ as the currency symbol, but in its most recent communications, the GOG itself uses the symbol Gh¢, so Gh¢ is used in this report.

[17] Notably, the GIPC Act gives specific exemptions to the foreign minimum capital requirement for investments in export manufacturing firms. This exemption gives export manufacturing firms access to GIPC investment incentives without the minimum capital investment thresholds required for investments into other agroprocessing schemes designed for export markets.

Local permitting. As mandated in Ghana's constitution (the Constitution)[18] and further refined in the **Local Government Act, 1993 (Act 462)**, Ghana maintains a decentralized local governance system where municipal-level governments have certain authority that is separate and independent from national-level governmental regulations. In fact, local governments in Ghana have wide-ranging authority to regulate economic activity within their jurisdictions. In order to operate new business or business facility, a business operating permit must be obtained from the local District Assembly and a fee must be paid in accordance with a municipal fee schedule. As a condition for granting a business operating permit, the District Assembly may require additional local licenses depending on the type of business, although few additional licenses are required for agricultural enterprises. Municipal governments are required to review a copy of the certificate issued by the RGD as a precondition for granting a local operating permit; however, this requirement is not enforced evenly.

Along with municipal licensing, the relevant District Assemblies must conduct a site visit to ascertain the suitability of the business property for the intended business purpose. The site visit also provides access for inspecting the facility and related improvements establish a basis for taxation and tax adjustment on behalf of the District Revenue Authorities. Through this site visit, municipal authorities can also identify opportunities for further local support to help facilitate successful investment and business startup, including, for example, expedited utility hookups.

Regulation of Cooperatives. In Ghana, agricultural cooperatives are preferred vehicle for producer's organizations, especially throughout northern Ghana. Forming and operating cooperatives are governed by the **Co-operative Societies Act, 1968 (NLCD 252)** (the Co-Operative Societies Act)**.** The legal framework contained in the Co-Operative Societies Act is outdated; it formally harkens back to a history of extensive governmental control over cooperatives. Nevertheless, the law lays out the fundamental features and requirements for the 11,000 agricultural, financial, industrial, and service cooperative societies operating in Ghana. For example: (a) cooperatives are considered separate entities and legal persons (similar to corporations); (b) as a separate legal entity, cooperative may own movable property, enter into contracts in the name of the society, and incur liability. Cooperatives must have no fewer than 10 natural persons (that is, legal persons such as companies may not own shares in a cooperative), and must exist for a declared legal purpose for the mutual benefit of its members. Cooperatives can have either limited liability, which means personal liability is limited to the capitation subscription fees, or unlimited liability, which means members of the cooperative can be held jointly and severally liable up to the value of their individual personal estates.

The function of the government as established by the **Cooperative Societies Act** provides a high degree of administrative oversight and control that is inconsistent with best practices in cooperative society regulation, and is inconsistent with good practice. As discussed further below, **Cooperative Societies** are regulated in a fashion that seeks to be more facilitative of growth and development rather than control. In 2004 a dramatic revision to the Cooperative Societies Act was reviewed by the Parliament, but was not ultimately promulgated. Revisiting the Cooperative Societies Act could help to reinvigorate cooperatives as a means of encouraging improved market linkages within the agricultural sector and facilitate increased economic activity.

Accessibility of the Legal Framework

Overall, the legal framework governing the startup and growth of agricultural enterprises in Ghana is publicly accessible, available in print and electronic copies through multiple sources. The general public has access to all current laws and regulations, and a helpful library of administrative forms that can be completed online or downloaded. Although this is not the case for all areas of law, as noted in other

[18] Officially, The Constitution of The Republic of Ghana, adopted by national referendum on April 28, 1992.

chapters of this report, Ghanaian institutions typically provide useful access to the critical information needed to form and grow businesses in the agricultural sector.

The process of starting and growing an agricultural business is governed by a wide array of laws, which could be organized more efficiently through comprehensive reform initiative. However, the extant patchwork does not appear to be a limiting factor for forming new businesses in Ghana. The Registrar General's Department helps applicants navigate through. Furthermore, the administrative processes mandated for business formation are summarized effectively by bodies like the Ghana Investment Promotion Center, providing entrepreneurs with access to the information necessary to navigate business startup.

IMPLEMENTING INSTITUTIONS

Registrar General's Department

The **Registrar General's Department** in the **Ministry of Justice and Attorney General** is the focal point for forming new businesses in Ghana. The RGD houses Ghana's company registry and administers the regulatory processes. A Certificate of Incorporation and a Certificate to Commence Business issued by the RGD are the key documents required for a wide range of public and private services.

Visitors to the main company registry office in downtown Accra will find that the two agencies required for the preliminary steps of the business registration process, the RGD and the Ghana Revenue Authority (GRA), have an open and accessible facility with a co-located workspace, offering a single stop for new business registrants. Outside Accra, RGD regional offices have opened in Secondi, Tamale, and Kumasi to reduce the costs of reaching an RGD office. Each RGD satellite office has the authority to perform the same services as the main office in Accra via a fully networked business registry system. This is a major improvement over the old system in Ghana, which requiring personal travel to the RDG office in Accra.

The Registrar General has also launched an online business registration process on a web platform developed and operated through a public-private partnership between the Registrar General's Department and GCNet. Once fully operational, businesses will be able to initiate processing online, 24 hours a day, 7 days a week, offering extraordinary flexibility especially for individuals in regions that are distant from regional RDG offices. At the moment, all regulatory steps managed by the RDG can be accomplished through the online portal, however the web-based payment system has limited functionality and stories of lost payments with no records abound. For this reason, while submission of registration and renewal applications may be undertaken online, many businesses still elect to have its agents appear at the RGD offices in person.

Department of Cooperatives

As previously noted, agricultural cooperatives are a preferred structure for producer's organizations in Ghana, especially throughout northern Ghana. The 11,000 agricultural, financial, industrial, and service cooperative societies operating in Ghana are regulated by the **Department of Cooperatives** within the **Ministry of Employment and Labor Relations**. The Department of Cooperatives promotes, trains, registers, and otherwise supervises cooperatives throughout Ghana. To facilitate the launch, development, and administrative oversight and control of cooperative societies in Ghana, the Department of Cooperatives was established by the Cooperative Societies Decree, 1968 (NLCD 25 2), and implementing regulations were established under the Cooperative Societies Regulations (L.I. 604). The Cooperative Societies Decree provides for significant administrative oversight and mandates considerable control over cooperative societies. However, in practice, the Government of Ghana has shifted the Department of Cooperatives from a control to a facilitative function and is advocating for legal reform to amend the laws to reflect this facilitative approach.

The Department of Cooperatives has responsibility for providing district-level support across 216 districts throughout Ghana. At present, the department has sufficient staff at only half of those district offices. This means that each district-level official is responsible for managing two districts, and for travel between those districts. District-level officials are also responsible for (a) conducting training for cooperative societies, (b) conducting periodic audits to ensure compliance with financial controls and the Cooperative Societies Regulations, and (c) providing help and support for forming new cooperatives. However, district-level staff of the Department of Cooperatives do not have sufficient resources to provide formation help and support; they often have no travel budget or formal vehicles.

Ministry of Food and Agriculture

The Ministry of Food and Agriculture (MOFA) establishes the policy framework for agricultural support, with programs that emphasize production. MOFA is the primary entity responsible for implementing agricultural sector policy in Ghana, as guided by the Medium Term Agricultural Sector Development Plan (METASIP 2010-2015). MOFA has historically focused much of its budget on production-level interventions, with particular commodity focus on Crops[19] (cereals and starchy crops) and Livestock (cattle, sheep, goats, pigs, and poultry).

The majority of farms in Ghana are less than 2 hectares in size, with most farms practicing rainfed irrigation and having virtually no mechanization. MOFA has focused investments into production support through large irrigation schemes, inputs subsidies, extension services, and providing agricultural project financing. Of particular note, the MOFA launched the Ghana Commercial Agriculture Project (GCAP), running from 2012–2019 at a total cost of US$145 million, which is designed to help address key constraints limiting the growth of commercial agriculture throughout northern Ghana. GCAP, launched with World Bank, USAID, and MOFA funding, represents an opportunity for MOFA to focus efforts on targeted value chain investments.

Results for GCAP through March 2017 have received mixed reviews from stakeholders in the region. In particular, the GCAP emphasis on scaling up formal producers creates an incentive for formalizing in the agricultural sector, but for most of Ghana's agricultural sector, the above-mentioned low level of agricultural formalization represents a barrier to effectively accessing GCAP funding.

SUPPORTING INSTITUTIONS

Business Service Providers

Ghana has an abundance of business service providers capable of supporting new businesses. Private sector business consulting services, law firms, and accounting professionals offer services, but are focused primarily in Accra and Kumasi. Therefore, as a practical matter, only limited business support services are offered for rural and agricultural businesses. The **National Board for Small Scale Industries (NBSSI)** offers basic business advisory services through a network of Business Advisory Centres (BACs) distributed across 170 district capitals throughout Ghana. NBSSI is a government agency managed by the **Ministry of Trade and Industry.** NBSSI provides a wide range of support services for businesses through the BACs, including introductions to government laws and regulations, facilitating credit through bookkeeping training and business plan design, training in gender diversity, grades and standards for certain industries, and training in business association formation and growth to improve industry advocacy.

[19] As noted by MOFA, METASIP focuses governmental efforts on agriculture-led development across five priority agricultural subsectors: Crops, Livestock, Fisheries, Forestry, and Cocoa. MOFA has lead responsibility for Crops and Livestock. The Forestry Commission under the Ministry of Lands & Mineral Resources manages Forestry interventions, the Ministry of Fisheries and Aquaculture Development manages the Fisheries interventions, and the Ghana Cocoa Board under the Ministry of Finance and Economic Planning manages cocoa policies and interventions.

Private Sector Organizations

Private sector organizations abound in Ghana, organized around geographic area, commodity, and partner-type organizations. The Ghana Grains Council (GGC) is a private sector organization established in 2010 with support from USAID. The Ghana Grains Council provides a range of business support services to agricultural enterprises throughout the grains value chain. The GGC provides assistance in business planning, management, facilitated access to inputs, and financing and risk mitigation through crop insurance. The GGC provides market facilitation support for its membership, and facilitates access to finance through capacity strengthening for bookkeeping and business plan development, as well as access to a nascent warehouse receipts program.

More broadly, the **Private Enterprise Foundation** (PEF) is an apex organization formed with the assistance from USAID in 1994 to coordinate private sector advocacy efforts and to strengthen private sector policy analysis to encourage data-driven reform. PEF represents the broad-based interests of all private sector actors, formal and informal, in all segments of the economy including agriculture. Beyond advocacy support, PEF maintains a training capacity capable of delivering training to fit the needs of businesses from basic business planning and market analysis to strategy support and budget forecasting. Notably, PEF announced a substantial grant from the African Development Bank to provide extensive training, free of charge, to 2,000 MSMEs (micro, small, and medium enterprises) from all regions in Ghana in an effort to expand business advisory services beyond the main commercial centers.

This initiative accepts applications from active businesses or entrepreneurs with viable business concepts, whether formal or informal, and offers a complete range of training to entrepreneurs, who will be accepted into the program in cohorts. In order to start training sessions, the entrepreneur must first register its business with the RGD—which is the only financial obligation for participants.

The program reserves 50% of the spots for agricultural sector enterprises, and 35% of the spots for women. To boost accessibility, the training modules will be offered in person and also online, and in a range of local languages across Ghana. Training ranges from business startup operations and small business management to value chain analysis, technology audits, and planning for and managing expansion. he 2,000 seats have been fully subscribed. However, although the initiative is to be fully funded by the grant from the African Development Bank, PEF indicated that as of March 2017 it had not yet received the funding. Assuming PEF obtains the committed funding, it presents an interesting case study for further evaluation as a business training and capacity strengthening model for developing rural agricultural business.

Savannah Accelerated Development Authority

The Savannah Accelerated Development Authority (SADA) is a government agency founded in 2010 as a statutory corporation to promote targeted development in the northern savannah segment of Ghana, including the Upper West, Upper East, and Northern regions, as well as the northernmost slices of the Brong Ahafo and Volta regions. SADA receives a large degree of its budget as a line item in the national budget, though it has received donor assistance and a smart program for focused agricultural investment in collaboration with the USAID FinGAP program. Government funding for SADA has been curtailed because rumblings about inefficiency, waste, and corruption within SADA in 2014. However, SADA has made a wholesale change in leadership and strategy (posted publicly in a candid report) and has emerged as a leaner organization framed within a market systems approach.

SADA focuses its efforts on facilitating regional and district-level development planning through Regional Coordinating Assemblies and District Councils, all intended to culminate in an intraregional development strategy. SADA's master plan emphasizes on agriculture-led development, with an agricultural investment forum in July 2016 as its first focal event. In all, SADA has leveraged nearly US$175 million of investment in the Savannah region.

Originally organized as an active market investor and investment project manager, SADA has dramatically reorganized its support model to become more akin to a subnational investment promotion organization with a light footprint. Engagement with SADA is not compulsory for investors seeking to invest in the SADA region. However, the services offered by SADA appear worth the simple registration process. While GIPC facilitates access within national government agencies, SADA complements GIPC investor support for launching a business through SADA's extensive network with regional and district-level authorities. To promote closer coordination with GIPC, the CEO of SADA sits on the board of the GIPC, and in the past GIPC has seconded advisors to supplement SADA's capability and to coordinate between national and regional development plans. SADA maintains lists of various investment opportunities and inducements broken out by district.

SOCIAL DYNAMICS

Northern Exposure

Through the prism of business growth, stakeholders presented a picture of two stark, contrasting projections of growth in Ghana. Southern Ghana, blessed with abundant water resources, high-value export crops, extensive gold and hydrocarbon reserves, and explosive growth in off-farm employment, provides an easy launching pad for market-based agricultural sector development. Higher literacy rates, deeper ICT penetration, and lower incidences of poverty enable many opportunities.

Northern Ghana presents a vastly different picture. Lower household income levels, higher incidences of poverty, lower literacy rates, and poorer connectivity translate into disincentives for formal sector growth in the northern corridor.

These regional discrepancies, paired with the significant possibility for investment in the agricultural sector, have made northern Ghana a focal point for donor interventions. The work of agencies like SADA and USAID, and other donor activities, have helped broadcast viable investment opportunities in northern Ghana, yet endemic underinvestment of public services in northern Ghana has created a dramatic regional disadvantage.

Data shows that compared to all national households, a much higher percentage of households in northern Ghana participate in the agricultural sector. This disparity suggests that continued emphasis on agricultural sector development will remain a critical linchpin for regional economic growth. However, stakeholders in northern Ghana have expressed concerns about the ongoing commitment to investing in public infrastructure, because new administration priorities have shifted focus toward tighter fiscal discipline. Focused public investments in ICT, transport infrastructure, and education and skills-building will remain critical to maximize the incentives for new private sector investments in the region.

Making Money, Averting Conflict

Northern Ghana has long served as a transit zone for traditional pastoralists from across Western Africa, who have driven cattle, goats, and other ruminants through the savannah region provinces to large markets in Tamala, Kumasi, and Accra. More recently, population spikes driven by a large youth bulge have led to growing clashes between the livestock traders and farmers in the region. Incendiary conditions may persist in northern Ghana, because (a) limited documentation exists to confirm historical transit rights on traditionally titled land, and (b) traditional chiefs have significant authority to alter traditional titles.

Several regional stakeholders in northern Ghana have expressed an interest in undertaking a concerted effort to develop a more formal livestock transit corridor in northern Ghana. By establishing a clear right-of-way along a path, investment could flow into supporting infrastructure to manage livestock service stations, providing water, feed lots, and basic veterinary services. Because the regional livestock trade represents a clear, high-volume and high-value market, ongoing uncertain transit rights can create conditions that can lead to conflict. Clarifying these rights through a brokered solution can help channel investments to help northern Ghana capture value out of this regional market system.

OBTAINING SEED

The seed industry in Ghana has been slow to develop since the privatization of the parastatal Ghana Seed Company in 1989. While some African countries have seen their seed industries grow and the use of improved seed flourish, in Ghana the amount of certified seed has remained fairly static for decades. According to AGRA and GSID statistics, the average amount of certified seed produced annually in Ghana increased from 300 metric tons (MT) in 1993 to 4,682 MT in 2013.[20] In contrast, Uganda has seen rapid growth in its seed industry, from an average of less than 1,000 MT in the late 1980s to 12,000 MT in 2008, most of which is attributable to private sector development since 2001.[21]

The seed sector in Ghana is dominated by small-scale seed growers, many of whom are somehow tied to the government. Many of them began as contract growers for the Ghana Seed Company in the 1980s, source foundation seed from government institutions, and process and store their certified seed lots using government facilities.

The cost of certified seed, which is controlled by committee, hovers at around three to four times the cost of grain for open-pollinated varieties (OPVs) and six times the grain price for hybrid varieties. Prices are increasing, but remain quite low compared to other countries. For example, the cost of hybrids in Kenya can reach 10–11 times the cost of grain.[22] Yet these low prices have not translated into uptake by farmers, only 10–15 percent of whom use improved seed. Low farmer demand, combined with a lack of plant variety protections, restrictions on seed import, and a lengthy and costly variety registration process, have all limited domestic and foreign private sector investment in the seed industry.

With a new seed law and the anticipated final adoption of new seed regulations by the summer of 2017, the legal framework for a modern seed sector aligned with Ghana's regional commitments to ECOWAS will largely be in place.[23] In addition, an emerging group of 10–15 small seed companies have begun venturing into outgrower schemes, foundation seed production, branding, and even breeding. However, the industry faces several challenges that may still limit its development in the coming years, not least of which is a skepticism on the part of government institutions regarding private sector capacity and trustworthiness.

How the government and development partners react to and support private seed sector development in the coming years will have a substantial impact on the structure and strength of the industry as well as the access and affordability of modern technologies for farmers.

LEGAL FRAMEWORK

With the notable exception of legislation protecting plant varieties (which, as noted, is pending), Ghana has adopted a seed policy framework and legislation in line with its regional obligations and recognized good practice for developing of a private-sector-led seed system. In addition, the GOG's **National Seed Policy (2013)** and **National Seed Plan (2015)** state a strong government commitment to developing the private sector.

In 2010, Ghana passed the **Plants and Fertilizer Act, 2010 (Act 803)** (the Act), Part II of which governs seeds. This Act replaced the Seed (Certification and Standards) Act of 1972 and its accompanying

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[20] The National Seed Plan reports that an average of 2,634 metric tons of maize seed was produced annually from 2011–2013. See National Seed Plan, page 7, Table 2.

[21] See African Seed Trade Association, Baseline Survey of the Seed Sector in Uganda (2010), available at http://afsta.org/wp-content/uploads/documents/UGANDA%20SEED%20SECTOR%20BASELINE%20STUDY.pdf.

[22] Tripp, IFPRI paper (2013).

[23] A plant variety protection bill also remains pending before Parliament.

regulations. Draft regulations to support the 2010 Act were submitted to Parliament for approval but failed to meet the minimum number of days for Parliamentary consideration before the last election. As of March 2017, the regulations remained under review by the Attorney General, after which they will be resubmitted for Parliamentary approval (expected by mid-2017). When adopted, the regulations will bring Ghana's legal framework in line with the newly ratified harmonized seed regulations for the ECOWAS region. Ghana has also issued **Plant Protection Regulations, 2012 (LI 2193)**, which govern the import and export of plants and plant material, including pest surveillance measures, quarantine provisions, and procedures for obtaining phytosanitary certificates.

In June 2016, Ghana ratified the **2008 ECOWAS Regulation C/REG.4/05/2008** on Harmonization of the Rules governing quality control, certification, and marketing of plant seeds and seedlings in the ECOWAS region. This regulation aims to facilitate regional trade in seeds and increase private investment and farmer access to high-quality seeds. The regulation establishes the West African Catalog of Plant Species and Varieties and adopts the principle of mutual recognition of seeds registered and certified according to the domestic procedures of other member states.

Key Laws and Regulations

- National Seed Policy (2013)
- National Seed Plan (2015)
- Plants and Fertilizer Act, 2010 (Act 803), Part II
- Seeds (Certification and Standards) Regulations, 2016 (DRAFT)
- Plant Protection Regulations, 2012 (LI 2193)
- 2008 ECOWAS Regulation C/REG.4/05/2008 on Harmonization of the Rules governing quality control, certification, and marketing of plant seeds and seedlings in the ECOWAS region
- Fees and Charges (Miscellaneous Provisions) Act, 2009 (Act 793)
- Plant Breeders Bill, 2013 (DRAFT)

As mentioned elsewhere in this report, access to legal information in Ghana is strongly lacking. Neither the Act nor any of the accompanying regulations (whether final or in draft form) could be located online. Fees schedules, pest lists, and the national variety catalog are similarly unavailable electronically. Hard copies of this information must be obtained from a variety of offices and institutions throughout the greater Accra region: the Ghana Publishing Company in Accra sells hard copies of all final legislation and regulations; registration forms and permit applications must be obtained from the Plant Protection and Regulatory Service Directorate (PPRSD) in Pokuase; and the national variety catalog is available only from the Crop Services Directorate in Accra.

Seed-Related Enterprise Registration

Under Section 31 of the Act, all seed growers, importers, exporters, cleaners, and dealers must register with the Ministry of Agriculture. Applications must be made to the Minister, who may reject the application on "technical or economic grounds, national security, public safety or other reasonable justification for doing so."[24] In practice, applications are submitted to the Ghana Seed Inspection and Certification Division (GSID) of the PPRSD and must be renewed every two years. Fees for registration and all other seed-related regulatory services are set by the Ministry of Finance in annual regulations pursuant to the **Fees and Charges (Miscellaneous Provisions) Act, 2009 (Act 793)**.[25]

Despite the Act's permission for the private sector to perform a wide range of functions within the seed industry, the private sector has been slow to move into certain areas. Stakeholders pointed to a perceived resistance on the part of the GSID to register private sector companies to take on roles traditionally held exclusively by public sector institutions, particularly the production of foundation seed. Reasons stated for the resistance varied, but included delays in finalizing the legal framework, lack of awareness of new rights under the Act, and a general lack of faith in private sector capacity. With respect to foundation seed, the

[24] Act, Section 32(2).
[25] Fees and Charges (Amendment) Instrument, 2016 (L.I. 2228).

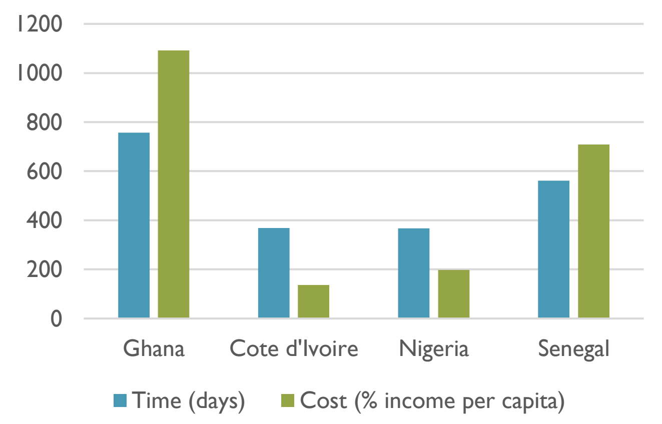
GSID, in Section 11 of the draft regulations, has imposed a requirement that foundation seed production must take place "under the direct supervision of (i) an agronomist, or (ii) a seed technologist, from an institution recognized by [GSID]." In practice, the GSID has permitted foundation seed production by two seed companies even in the absence of a breeder on staff. These companies essentially operate as outgrowers for the Crop Research Institute (CRI) or the Savannah Agricultural Research Institute (SARI), who have been unable to produce sufficient foundation seed, particularly in the north. The companies purchase breeder seed used in production from CRI or SARI and pay the fees for the certification bags and tags, but must label the seed as a product of the research institute that supervised the production. This arrangement will become more complicated as law and practice develop around plant breeders' rights.

Variety Registration and Release

Section 43 of the Act and Sections 5–8 of the draft regulations prescribe the requirements and procedures for registration and release of a new seed variety in Ghana. Applicants must provide performance data, details on the characteristics of the variety, and a proposed schedule for field trial visits, as well as a plan for the maintenance of the variety over time. The variety must then undergo field trials across multiple agro-ecological zones, which generally take two to three years to complete. New varieties must meet criteria for distinctiveness, uniformity, and stability (DUS) and show value for cultivation and use (VCU). According to Section 8(4) of the draft regulations, a new variety will not be approved unless "superior in performance to the existing commercial variety of that crop or plant in one or more characteristics important for that type of crop or plant and is at least satisfactory in other major requirements." The testing results are presented to a national variety release committee and, if recommended for release, submitted to the National Seed Council of MOFA for acceptance and signature by the Minister of Agriculture. Finally, the variety is added to the national variety catalog, at which point it is available for domestic production and sale.

As reflected in Figure 2, Ghana's variety release testing requirements are the lengthiest and most expensive in West Africa, as measured by the World Bank's Enabling the Business of Agriculture Index.[26] It takes 757 days and costs 1,091.6 percent of income per capita to register a new maize variety in Ghana.[27] In contrast, Nigeria and Cote d'Ivoire both take only one year (368 and 367 days, respectively) at less than a fifth of the cost (137.2 and 197.9 percent of income per capita, respectively). Ghana's poor performance is partly attributable to the stringent legal framework and partly to the functioning of the variety release institutions (see Implementing Institutions section).

Figure 2: Time and Cost to Register a New Seed Variety



Under the ECOWAS regulations, any seed released in any ECOWAS member state will be automatically registered in any other member state. The introduction of the West African Catalog of Plant Species and Varieties creates competition between countries to be first to protect and release new varieties. Ghana

[26] To see the scores and a description of the methodology used visit: http://eba.worldbank.org/data/exploreeconomies/ghana/2017#eba_seed.

[27] Vegetable seed is subject to slightly different (less stringent) requirements with significantly less time required for testing a new imported variety. Moreover, importers can sell and/or plant the imported seeds immediately while PPRSD testing is ongoing.

stands to lose income both for its domestic seed research institutes and from prospective private sector investment if its variety registration and release process is viewed as more cumbersome than the regulatory environment in neighboring countries.

Seed Certification and Quality Control

Seed certification is mandatory for the production and sale of any breeder, foundation, or certified seed in Ghana. The draft regulations and accompanying schedules set forth the requirements in terms of the number and types of field inspections and standards for different crops. Section 3 of the draft regulations names the GSID as the certifying authority.

Fees for seed certification are generally low (around Gh¢10–30 per lab test and Gh¢5 per hectare for field inspections), much lower than those for fertilizer products and pesticides. This reflects the PPRSD's stated policy to keep seed costs low to facilitate access for farmers.[28] Stakeholders did not report any problems regarding the seed certification process, although it seems unlikely that the GSID has sufficient resources to carry out certification activities according to the letter of the law. For example, under Section 159(1) of the draft regulations, all seed lots should be subject to four field inspections during production, but stakeholders report that in practice, the GSID usually completes only two or three.

The Act and draft regulations allow for the accreditation of private entities to conduct seed certification. In practice, none have yet been accredited. According to stakeholders, no private companies now exist that are capable of this function, but the capacity is likely to develop in the next 5–10 years. Accreditation, when it occurs, will free up the GSID's resources to focus on seed quality control and market inspection.

The legal framework also imposes penalties for improper packaging, labeling, and sale of expired seed lots. GSID is authorized to conduct routine market inspections to ensure the quality of seed in the marketplace and to remove goods from the market where violations are found.

Seed Import and Export

Seed import and export are governed by Section 39 of the Act and Sections 152–154 of the draft regulations. Seed importers must first register as importers with the GSID and then apply separately for an import permit for each individual shipment. At the port of entry, PPRSD takes a quarantine sample, conducts a germination test, and confirms the country of origin in accordance with the plant protection rules in Part I of the Act and its accompanying regulations.[29]

Importers of vegetable seed describe seed importation as a relatively straightforward process and raised no major complaints. However, stakeholders regularly made the distinction between vegetable seed, which cannot be produced domestically, and seed varieties that would directly compete with varieties already produced in Ghana, most of which were developed and continue to be produced by the national agricultural research institutes. To date, more than one private sector entity has faced an uphill battle to obtain approval to import hybrid maize seed.

The debate centers on the interpretation of a clause in Section 39 of the Act,[30] which the GOG has interpreted to require importers to immediately begin domestic production of any imported seed variety. This interpretation is highly unattractive to foreign investors, who desire time to test the market for imported varieties before investing further in domestic production. The situation has already compelled

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[28] Fees and Charges (Amendment) Instrument, 2016 (L.I. 2228).

[29] Plant Protection Regulations, 2012. This process is described in more detail in the chapter on Trading Across Borders.

[30] Seed Act, Section 39. See also Section 6(7) of the draft regulations, which contains similar language: "As specified in section 39(1)(b) of the Act, a person who is registered to import seed materials into the country for the purpose of direct and commercial distribution to farmers for production shall ensure that the seed materials meet and conform to these Regulations and the Act."

at least one foreign seed company to withdraw its plans to invest in Ghana. The later-drafted National Seed Policy, while still favoring an approach that protects and promotes the domestic seed industry in lieu of reliance on imports, is much more favorable to the gradual investment preferred by importers.[31]

Only one company has succeeded in obtaining an import permit and variety registration for a foreign-bred hybrid maize variety. The request had to be personally approved by the Minister of Agriculture following an agreement for the eventual development of domestic production. Lack of clarity on the formal requirements and process for obtaining import permission has the potential to lead to unequal application of the law. Ambiguity also leaves room for MOFA to override its own objections and stated policy objectives on an ad hoc basis to support its own agenda.

However, resistance to importation of foreign-produced hybrid seed may wane this year, because the MOFA faces an anticipated 2,200 MT shortfall in the quantity of seeds needed for the Planting for Food and Jobs subsidy. This shortfall is attributable to poor production levels last year: only 2,000 MT of OPVs are available in Ghana and an estimated 4,200 MT of seed are needed for the subsidy program. MOFA is expected to fill the gap with hybrids, which if not available domestically, will have to be imported.

Plant Variety Protection and Access to Public Genetics

As noted in the introduction to this section, Ghana lacks legal protection for the rights of plant breeders to profit from their investment in seed research. A **Plant Breeders Bill** drafted in 2013 based on the principles of the UPOV[32] Convention of 1991 has been stalled in Parliament for several years because of strong opposition from farmers' groups. The bill's introduction generated a huge public outcry in 2014 and 2015, and it is unclear when or if the bill will be passed in its current form. Ghana has not yet ratified the UPOV Convention, nor is the legal framework aligned with the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Unsurprisingly, Ghana has low levels of private investment in the seed industry and virtually zero private seed breeding.

This gap in the legal framework slows innovation and limits access to new germplasm for Ghanaian farmers. The lack of plant variety protection (PVP) rights creates challenges not just for the private sector but also for Ghana's agricultural research institutes. The Crop Research Institute (CRI) in Kumasi and Savannah Agricultural Research Institute (SARI) in Tamale conduct almost all domestic breeding, yet have no legally protected rights over (and thus no means for economic benefit from) their work.

In the absence of a final PVP bill, the Council for Scientific and Industrial Research (CSIR) has developed an internal intellectual property (IP) policy to allow its researchers to earn royalties by licensing their varieties. This policy started with the introduction of non-exclusive licensing, but negotiations have begun for an exclusive licensing arrangement with a private seed company for the commercialization of two varieties developed by CRI. The company will pay for the breeder seed plus 5% royalties on the sale of the certified seed. To promote innovation, part of the royalties will go directly to the breeder.

As CRI and SARI partner with private seed companies in breeding research, clear delineation of rights on commercialization of the varieties developed will become more and more critical. For example, during a recent collaboration between a private company and CRI, a dispute arose over who owned rights to commercialize the variety. The company was prohibited from selling the variety under its name, but the seed has nonetheless appeared in the market, leading to suspicions of side-selling on the part of the researcher.

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[31] National Seed Policy, Section 13.2.3: "Government will encourage all seed companies who have to resort to imports of certified seeds of field crops, including hybrids, to have a short duration import programme aimed at growing the market for their released variety(ies) and hybrids and to, as soon as possible, develop in-country production of such variety(ies) and hybrids to substitute for the imports."

[32] "UPOV" is the acronym for the International Union for the Protection of New Varieties of Plants (in French, *Union internationale pour la protection des obtentions végétales*).

IMPLEMENTING INSTITUTIONS

Ghana Seed Inspection and Certification Division (GSID)

The primary regulatory body for the seed sector in Ghana is the **Ghana Seed Inspection and Certification Division (GSID)**, which is housed within PPRSD. GSID handles the registration of all seed-related enterprises, seed certification (for breeder, foundation, and certified seed), and market inspections, and the head of GSID sits on the two variety release committees. GSID also manages the National Seed Testing Laboratory. Although Ghana is a member of the International Seed Testing Association (ISTA), the laboratory is not yet accredited by ISTA. The Plant Quarantine Division of PPRSD handles quarantine inspections, phytosanitary certificates, and permits for the import and export of plant materials, including seed.[33]

Key Implementing Institutions

- Ghana Seed Inspection and Certification Division (GSID)
- National variety release committees
- Crop Research Institute (CRI) and Savanna Agricultural Research Institute (SARI)
- Grains and Legumes Development Board (GLDB)
- National Seed Advisory Committee

GSID was a semi-autonomous body until 1989, when the privatization of the Ghana Seed Company led to a reshuffling of the regulatory institutions for seed. As part of MOFA, PPRSD (and with it GSID) largely receives its funding through the federal budget. These allocations are rarely equal to the amount requested during the preparation of the budget, and of the amount allocated, only a fraction is disbursed to PPRSD each year. Internally generated funds (IGF) from licenses, import permits, and other services reportedly total more than 100 percent of the resources needed to run the division, but PPRSD retains only 20 percent of its IGF and pays the remainder into the national consolidated fund.

The major contributor to the IGF of PPRSD is the Pesticide and Fertilizer Regulatory Division. PPRSD representatives stated that seed-related fees, such as for seed certification, are kept low to facilitate access. Indeed, private seed enterprises did not express any concerns regarding the fee structure for seed regulatory procedures. On the other hand, the existing budget for GSID (and for PPRSD overall) is insufficient to fulfill its mandate. GSID lacks sufficient staff, equipment, and monetary resources to conduct seed certification and inspection activities.

For all seed processed at government facilities run by the GLDB, GSID inspectors finalize seed certification, bagging, and labeling of new seed lots at the facilities. Seed producers that use their own processing equipment must obtain bags and labels in person at the PPRSD headquarters in Pokuase (outside Accra). GSID monitors exactly how much breeder seed each seed grower receives. Based on this information, GSID can calculate how much certified seed the grower should or could have produced, which creates a ceiling on the number of seed bags and certification labels each producer can obtain. GSID also tracks how much seed is actually produced, as well as how much is sold and what amount remains in stock at the end of the growing season. Section 159(15) of the draft regulations states the recordkeeping requirements for seed growers and distributors.

GSID has approximately two inspectors for each region tasked with field inspections and market surveillance. Market inspections should be conducted at random, and GSID aims to visit each shop approximately once per year. In reality, inspections appear to be more regular in and around Accra than in more rural areas. The Pesticide and Fertilizer Regulatory Division of PPRSD has a similar number of inspectors and market inspection procedures, and the two divisions are trying to integrate their inspection services to save resources. Input dealers did not seem overly concerned about visits from GSID. According to one seed dealer, these market inspections do happen with some regularity, but are not of huge concern.

[33] The Trading Across Borders chapter presents more information on PPRSD's plant quarantine activities.

The inspectors generally take a few samples for testing, and often do not make a return visit. If they do, they may provide a warning and ask the input dealer to pull the lot.

Variety Registration and Release Institutions

Under the Act, Ghana has three regulatory bodies involved in the variety registration process: the **Technical and Variety Release Committee (TVRC)**, the **National Variety Release and Registration Committee (NVRRC)**, and the **National Seed Council**. As described in the Act, the membership and duties of each of the two variety release committees substantially overlap. In practice, stakeholders stated that the two committees are effectively the same and referred to them interchangeably. Members of the TVRC and NVRRC include representatives from the public and private sectors, although both are more heavily weighted in favor of the public sector.

According to private sector stakeholders and the GLDB, all variety release committee members (approximately 15–20 individuals) are invited to attend all field inspections during the field trial phase for a new variety. This practice, which is not required under the law or draft regulations, adds extra time and expense to an already expensive and lengthy variety registration process. According to one company, registration of a single variety cost US$50,000 over three years of trials across seven agro-ecological zones. The committee meets on request once all field and lab testing is complete. The committee submits its recommendations to the National Seed Council for approval, signature by the Minister of Agriculture, and then publication in the national variety catalog. In practice, stakeholders suggested that the National Seed Council meets rarely and its approval can be delayed from six months to a year.

Agricultural Research Institutes

The Council for Scientific and Industrial Research (CSIR) is the apex body for national research institutions in Ghana. Two national agricultural research institutes conduct seed research and testing: the **Crop Research Institute (CRI)** in Kumasi and the **Savanna Agricultural Research Institute (SARI)** in Tamale.[34] CRI conducts research across all food and industrial crops, including conventional breeding and biotechnology. CRI has developed more than 30 varieties of maize seed, most of which are OPVs but with an increasing focus on hybrids in the past six to eight years. CRI also has a commercial unit that produces certified maize seed of the most popular OPV.

To enable the research institutes to forecast breeder seed production requirements, the GLDB should request the amount of each variety one year in advance, although this deadline is not always met. CRI tries to keep minimum amounts of a range of varieties on hand, plus more of the most popular ones.

Private sector and development partners claimed that CRI and SARI lack the capacity and innovation to serve a growing private seed industry and meet farmer demand. Therefore, development partners, including USAID, have been devoting funds to bolstering the research capacity of these institutions by funding new breeders and improved equipment. Despite this assistance, partners expressed concern that CRI and SARI remain unable to maintain the purity of breeder seed or conduct successful variety release trials, and that public researchers make little to no effort to gauge market demand to guide their research. For their part, researchers also expressed concerns regarding the encroachment of urban development, which has caused them to incur greater expense in traveling to and from their trial plots.

Grains and Legumes Development Board (GLDB)

The **Grains and Legumes Development Board (GLDB)** was created by an Act of Parliament in 1970 to encourage development of the grain and legumes value chains by producing improved seed, conducting research and collecting statistics, and facilitating credit and marketing facilities for farmers.[35] Today, the GLDB primarily produces foundation seed and manages the six government-owned seed

[34] Some breeding and foundation seed production is also conducted by agricultural universities in Ghana.
[35] Grains Development Board Act, 1970 (Act 324).

processing and storage facilities located throughout the country. According to the GLDB, it continues to view its role as primarily one of supporting Ghanaian farmers by reducing the cost of seed. The GLDB believes that farmers are price sensitive and that food security depends on careful control of those costs to ensure access and uptake. The GLDB buys breeder seed from research institutes or universities for a nominal fee and produces foundation seed that is then sold to small-scale seed producers. Seed producers are expected to send the GLDB their requirements for foundation seed for the next year in advance.

The GLDB retains 100% of its IGF—a sizable amount compared to the budget of PPRSD—yet finds these funds insufficient to allow for capital improvements to its equipment, which dates from development assistance projects in the 1980s. Private sector stakeholders did not believe the GLDB has the capacity to meet the needs of the market in terms of the quality and quantity of foundation seed produced each year.

For its part, the GLDB management does not believe the private sector has the capacity nor the inclination to provide what farmers need at a reasonable cost. A GLDB representative expressed the view that if breeder and foundation seed production was wholly in private sector hands, the private sector would produce only the most elite seed varieties, leaving other crops essential to food security by the wayside. With respect to processing, the GLDB sees its role as a public service, providing processing and cold storage facilities at a nominal fee. Ownership of this type of facility is out of reach of most private seed producers but essential to preserving seed quality and viability.

Beyond participation in the variety release committees, the new Act and draft regulations specify no clear role of the GLDB. Moreover, the National Seed Policy explicitly states an intention to transition foundation seed production to the private sector.[36] As the private sector expands, the GLDB would be wise to revisit its institutional strategy and adopt a vision for the effective evolution of its role over time.

National Seed Advisory Committee

The **National Seed Advisory Committee** is an informal committee of breeders, foundation seed producers, private seed growers, and input dealers. The group meets annually to set the price of certified seed across a variety of crops, including maize, soya, and rice. The price is based on estimated production costs presented by seed growers, to which a ratio of 1:2:4 is applied to arrive at the cost of foundation and breeder seed, respectively. Prices vary to some extent by region. For example, in the Ashanti region, which is a major producer of certified seed, the price is lower than in other areas. Despite this arrangement, producers do not always have sufficient bargaining power to command a good price; unless they have a negotiated arrangement to sell directly to a distributor, they may be forced to sell to a middleman under the established price. According to the GLDB, given the poor harvest last year, the committee will not meet this year and will reuse last year's established prices.

SUPPORTING INSTITUTIONS

Seed Sector Trade Associations

Seed sector stakeholders have traditionally been organized into trade associations specific to different segments of the seed value chain. The **Seed Producers Association of Ghana (SEEDPAG)**, created in 2005 with donor support, represents the hundreds of small-scale seed growers who make up the bulk

[36] National Seed Policy, Section 3.4: "Government will continue to encourage the takeover by the private sector of foundation seed production, and marketing and will ensure that public sector operations in these activities are progressively minimized to avoid such public sector operations clashing with, and acting as disincentives to the private sector seed development. The public sector's continued operations in seed production and marketing will only be allowed in situations where the private sector is not sufficiently active. It is also the intention of Government that, even for the areas traditionally considered domains for the public sector, the private sector should be encouraged to progressively partner Government. Thus, the goal will be to encourage private sector investment in variety development and early generation seed production."

of the certified seed production industry in Ghana. SEEDPAG representatives advocate for their members in policy dialogues and participate on their behalf in the National Seed Advisory Committee. Certified seed from SEEDPAG members is packaged in bags with the SEEDPAG label. Not all seed growers are SEEDPAG members. While estimates vary, SEEDPAG has approximately 200–500 members. Despite the ubiquitous SEEDPAG name in discussions of the Ghanaian seed sector, some stakeholders questioned its ongoing relevance as an institution, with one private company suggesting that the organization has not held regular meetings for members in many years.

Key Supporting Institutions

- Seed Producers Association of Ghana (SEEDPAG)
- Ghana Agri-Input Dealers Association (GAIDA)
- National Seed Trade Association of Ghana (NASTAG)

The **Ghana Agri-Input Dealers Association (GAIDA)** represents the interests of input dealers, including seed wholesalers and retailers, throughout the country. The organization has a national-level president, vice president, treasurer, and secretary, and a regional management structure that includes a regional chairman for each of the 10 regions and 216 district executives. Stakeholders estimated the organization's membership at 3,000–5,000 nationwide, with approximately 30 in the Greater Accra region and 200 in the Northern region. Membership in GAIDA is mandatory for those in the pesticide industry because registration with the Ghanaian Environmental Protection Agency depends on GAIDA training and certification. MOFA also uses GAIDA to communicate with input dealers when the law changes or when a need arises to provide new training to the industry. GAIDA charges Gh¢120 to register. Training sessions, two or three times per year, cost around Gh¢50–100, and licenses must be renewed annually.

In 2015, the **National Seed Trade Association of Ghana (NASTAG)** was established with support from the **USAID Agricultural Policy Support (APS)** project to bring all seed sector actors together to discuss and speak with a united voice in the policy process. The organization, officially registered in February 2016, aims to serve as the umbrella organization for the seed industry. NASTAG currently has 27 members, which include registered seed companies, seed importers, research institutions, and other associations such as SEEDPAG. GAIDA should be a member but has not yet paid its membership dues. Membership fees are minimal, and the budget for the organization is currently supplemented with grant funds from APS. NASTAG engages in advocacy and marketing, including a recent tender on behalf of its members for participation in the Planting for Food and Jobs subsidy. Despite its donor support and fanfare, few private sector stakeholders interviewed for this assessment had heard of NASTAG. It will require continued donor support and awareness building to promote its mission. Moreover, NASTAG must overcome skepticism from organizations, such as GAIDA, which are wary that their voices will be lost in a high-level organization.

Donor Projects

Donor support for the seed industry in Ghana has been a constant presence since at least the 1980s. Donor assistance supplements the budgets of MOFA and CSIR, and donor resources have funded training, upgraded laboratories, and supplied new equipment for seed institutions and the private sector.

The APS project has engaged heavily in the seed policy reform process. APS conducted workshops and advised the MOFA on aligning the new draft seed regulations with the ECOWAS harmonized seed regulations. GSID received support from APS in developing variety release manuals and a quarantine pest list. APS also supported the creation of NASTAG and has provided training in seed quality management to the private sector. In 2017, APS plans to undertake a seed industry assessment to inform the development of a comprehensive strategy for seed sector growth in Ghana.

The **USAID Agricultural Technology Transfer (ATT) project**, based in Tamale, has provided wide-ranging support for developing the seed industry in the northern region, including grant funds for acquiring processing equipment for seed growers, training in certified seed production, working with GSID to conduct field inspections and supporting SARI in breeder and foundation seed production and variety release. The project has also supported capacity development and infrastructure investment for three seed labs at GSID facilities in Tamale, the Upper West region, and the Upper East region. In 2017, the project will provide 20,000 starter packs to farmers through technology fairs. The packs include seed, fertilizer, and vouchers for soil testing and soil inoculants, all of which was contracted through private input dealers via an open bidding process. All included products will be marked with the provider's label to promote brand recognition and facilitate longer-term commercial relationships.

Several regional-level or Africa-wide seed sector development projects have activities in Ghana, including the **Alliance for a Green Revolution in Africa (AGRA)**, which has worked on training and registering input dealers, and has provided funding for plant breeding and grants to small seed companies. AGRA, the **USAID West Africa Seed Program**, and the **West and Central African Council for Agricultural Research** have all supported domestic implementation of the ECOWAS regulations.

SOCIAL DYNAMICS

Women in the Seed Sector

Women in the seed sector work predominately in seed distribution and sale. In the north, women often work as day laborers to remove foreign material by hand during processing. Stakeholders reported that only a small number of women are registered seed growers, although in practice they may provide a good deal of support in family-run, small-scale seed production. Land is traditionally held by men (although farmed with the wife's support), leaving women with little access to finance. Women also often lack the basic agricultural knowledge regarding production, and instead handle the marketing.

Farmer Demand

To date, farmers have shown little interest in improved seed, particularly hybrids. Only an estimated 10–15 percent of farmers currently use certified seed. For example, when buying certified maize seed, most farmers still purchase a 20-year-old OPV maize variety produced by the Crop Research Institute. Farmers tend to prefer saved seed; unlike hybrids, OPVs can refresh the stock from time to time and still be saved and reused the following year. The prevailing lack of interest in hybrids may also stem from the absence of strong output markets for maize and other staple crops. Stakeholders throughout the sector cited that farmers routinely suffer 30–50 percent postharvest losses. Without a suitable output market, the increased yield generated by the hybrid variety may not be sufficient to cover the higher cost of the seed. Seed importers also complained that anti-GMO messaging had been deliberately or inadvertently mixed with messaging regarding hybrid seed, leading to confusion among farmers.

Unlike some other African countries, Ghana does not seem to have a substantial problem with fake seed. Although a few farmers may sell grain as seed in a bad year, the new draft regulations will include procedures and stiffer penalties for those types of violations. When farmers do buy seed, they trust in the certified seed labels provided by the GSID seed certification process. Beyond SEEDPAG and GSID certification labels, brand recognition is low or non-existent.

Private Sector Capacity

Several stakeholders stated that the term "company" is a misleading characterization for Ghana's small number of official seed companies. Many of these so-called companies are merely input dealers who purchase certified seed from registered seed growers and sell on to farmers; others are small-scale individual seed growers with few resources or technical knowledge. Given these small-scale seed grower structures and the heavy-handed involvement of the GLDB in seed processing and storage, Ghana continues to lack the commercial linkages that characterize a mature seed industry capable of meeting the evolving needs of Ghanaian farmers. Most seed growers make no effort to know the ultimate consumer (farmer) because they have no connection to the retail process. They sell their production to input dealers directly from the government-run processing and storage facilities and do not concern themselves with the end market and its preferences. In reaction to this criticism, donors have been working to nurture the development of the domestic seed industry, and a small number of domestic seed companies have begun to emerge that are expanding into foundation seed production, processing, and direct commercial sales to farmers using their own brand and labels. Nonetheless, the total amount of all seed produced annually in Ghana has not increased. AGRA has attributed the slow growth of the sector to the high cost of finance and the time required for nascent seed companies to establish a reputation and brand loyalty among farmers.

Limitations on foreign investors, such as the requirement to invest immediately in domestic production, have so far largely kept the influx of foreign seed companies (with their superior resources, financing, and marketing expertise) to a minimum. Although this benefits the nascent domestic seed industry, it also deprives farmers of much-needed access to better germplasm, such as varieties adapted to drought and bred for greater yield and pest resistance. As the draft regulations are finalized and come into effect in later this year, the next steps taken by donors and the GOG to promote or restrict private sector investment will substantially shape the trajectory of the seed sector's commercial development in Ghana.

Government Mistrust of Private Sector

The words and actions of several seed sector institutions suggest a latent mistrust of the private sector. Officially, these institutions seem concerned about protecting the interests of farmers from companies that might care more about their bottom line than fair competition or providing high-quality products. However, the heavy involvement of the government in the production side of the seed sector, particularly on the part of the GLDB and research institutes, points to a secondary concern over protecting revenue and market share. Policies that would develop a sector capable of standing on its own, such as private sector investment incentives, do not exist for the seed industry, and the insistence on domestic production has been a hindrance to outside investment in crops other than vegetables.

There remains a pervasive sentiment within the GOG seed institutions to resist the influx of seed varieties developed abroad for reasons that are unclear. It may relate to defending the quality of the research conducted by Ghana's agricultural research institutes; concern over the cost structure of hybrids and their potential impact on the agricultural sector; or, as suggested above, a basic reaction to the sense that private sector investors may displace the market value of varieties that currently command a majority of the seed market and generate substantial annual revenue for government institutions.

The new administration's signature initiative, Planting for Food and Jobs, will introduce a seed subsidy in a bid to increase farmer usage of certified seed and fulfill a campaign promise to invest in agriculture. Although the exact implementation mechanism has not been made public, statements from various local and national government officials suggest that this year's subsidy program will be administered through government purchase and distribution of certified seed direct to beneficiary farmers, using underutilized government-owned storage facilities. This program will have indirect benefits on Ghana's seed research institutions and the GLDB by generating increased demand for foundation seed to meet the requirements of the subsidy program.[37]

The money put into this subsidy could be used to promote maturation of the seed industry by developing commercial pathways and market linkages from seed producer to input dealer to farmer. The private sector, particularly small domestic seed companies, will require government support to develop, and the government cannot fulfill its role as regulator and market participant with its current level of resources. Government resources would be better spent increasing the capacity of the GSID to monitor private sector activity and support private sector development. At a minimum, the subsidy mechanism should be carefully tailored to support the development of sustainable commercial linkages.

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[37] CRI expressed that the policy environment has become much more attractive, because the 50-percent subsidy on seed will create a pull on certified seed producers, which will in turn generate demand for breeder seed.

OBTAINING FERTILIZER

Fertilizer is a key input into agricultural production for increasing the productivity of small, medium, and large farms. However, fertilizer use has historically been low in Ghana, particularly outside the cocoa subsector.

After the agricultural product and input price hikes of 2007–08, the GOG decided to implement a fertilizer subsidy program, which has been underway for nine years (including 2017, but the program was suspended in 2014). The Ghana Cocoa Board has also subsidized fertilizer in some years (100 percent in 2016), but imports of fertilizer for use on cocoa, at least 100,000 MT in most years, are not part of the MOFA-administered subsidy program, which targets maize, rice, soybeans, millet, and sorghum. Fertilizer is also applied to high-value horticultural crops such as pineapple, mangoes, and passion fruit, where larger farms depend on importing firms that blend fertilizer formulations to their crop and soil specifications.

Despite incomplete statistics on the import and use of fertilizer, a few general observations are possible. Fertilizer imports in recent years have consisted of various NPK formulations,[38] ammonium sulfate, TSP, MOP, and urea. NPK fertilizers are used on food crops as well as on cocoa (NPK 0:30:20 and 10:10:10 plus trace elements). Imports of NPK accounted for nearly half of all fertilizer imports in 2015 (47.7%), a higher proportion than for the three prior years.

The GOG fertilizer subsidy program, designed to make fertilizer more affordable for small-scale farmers producing staple field crops, has contributed to a gradual increase in fertilizer purchases and use from 8 kg/ha in 2008 to 13 kg/ha in 2015.[39] Targeting of the subsidy has been less effective, however, as medium and large farms received a disproportionate share of fertilizer distributed under the subsidy program in 2013.[40] This is likely attributable to multiple factors:

- Small-scale farmers typically receive fertilizer during the lean season (later in the rainy season than optimal before the main crop is harvested). Consequently, some farmers elect to sell their fertilizer into the secondary market (which includes larger farms).
- Small-scale farmers may use fertilizer at lower than recommended rates per acre, which allows them to sell the extra fertilizer obtained under the subsidy program into the secondary market. The income from these sales can be used to meet a variety of household cash needs.
- A ready market for Ghanaian fertilizers exists in neighboring countries, particularly Burkina Faso.
- Medium- and large-scale farmers have a financial incentive to acquire subsidized fertilizer at a discount to prevailing market prices. (They can potentially offer a higher price than the subsidy price to entice small-scale farmers to sell some or all of their shares.)

After years of implementation of fertilizer subsidies in Sub-Saharan Africa (SSA), AGRA studied the efficiency, effectiveness, and impact of subsidy programs in 10 countries, including Ghana. The results of the Ghana country study, as well as select findings from other study countries in SSA and Asia, were presented and discussed at a validation workshop in Koforidua, Eastern Province on April 3–4, 2017. The

[38] Various NPK formulations are imported, and some are blended in country. In 2015, 50,133 MT of NPK 23-10-5 were imported, representing 36.3% of the 138,277 MT of complex fertilizers (NPK) imported in 2015. Imports of NPK 15-15-15, the main complex fertilizer used on field crops, especially grains, were only 11,403 MT in 2015, but probably most of this formulation was blended in country from imported ingredients. Other NPK imports in 2015 were NPK 20 10 10 + 3S + 2MgO (33,650 MT) and NPK 3 21 20 + 5S + 5MgO + 10CaO+ 0.5Zn + TE (22,866 MT). Blends that include micronutrients target specific crop nutrient requirements or offset soil nutrient deficiencies in the relevant production zones.

[39] MOFA/CSD presentation at AGRA workshop, 2017.

[40] IFPRI (2016).

workshop included a planning exercise for improving the subsidy program in 2018. The 2017 program, tied to Planting for Food and Jobs, an initiative of the new administration, aims to import and distribute up to 180,000 MT of fertilizer, which would be slightly more subsidized fertilizer than in 2011 and 2012. It is not clear if the Ministry of Finance (MOF) will provide sufficient funding to realize this import volume. During the first four years of the subsidy program (2008–11), MOFA allocated 19–33% of its budget to the subsidy program. The percentage reached close to 45% of the MOFA budget in 2012 before declining to 10–20% in recent years.

Table 1: Fertilizer Imports and Subsidized Volumes, 2008–15

	2008	2009	2010	2011	2012	2013	2014	2015
Total Imports (mt), for agric.	187,030	335,186	489,215	432,343	374,603	298,086	111,083	290,156
Industrial Use (mt)					96,592	72,926	102,138	67,673
Subsidied Imports (mt)	43,176	72,795	91,244	176,278	173,755	166,807	-	90,000
Subsidy as % Total Imports	23.1%	21.7%	18.7%	40.8%	46.4%	56.0%	-	31.0%
Total MOFA budget (mill. GHC)	102.4	145.5	160.0	241.8	262.2	306.0	no estim.	411.8
Subsidy Cost (mill. GHC)	20.7	34.4	30.0	78.7	117.4	64.0	-	45.0
Subsidy as % MOFA Expenditure	20.2%	23.6%	18.9%	32.5%	44.8%	20.9%	-	10.9%

Source: APSP, IFRPI/GSPP study of Soil Fertility Strategy; AGRA's Ghana Case Study, Fertilizer Subsidy Programme Modalities for 2016; Fertilizer Statistics Overview, Ghana: 2012–2015 (AfricaFertilizer.org)

Notes: (a) Fertilizer imported for industrial use is not included in the total import figures, which cover only agricultural uses. (b) Figures for 2016 are not yet available.

In January 2017, the GOG suspended the long-standing principle of exempting agricultural inputs from taxation.[41] Now importers must pay customs duties of 5% at the time fertilizer is imported; they can recover this payment through a refund process that allows the new government to review applications for exemption and release the funds to importers when the Ministry of Finance is satisfied that the claim is legitimate. The review of duty rebate applications is supposed to take one month or less. Importers have complained to the GOG, because they must borrow more money up front to cover the duty cost, which can be significant (for example, US$125,000 on a shipment of 10,000 MT of urea valued at US$250/MT). Importers report that they will build this additional cost into the delivered price of fertilizer upcountry, as they are not certain to get the rebate and there is a financial cost to borrowing more funds to cover the duty cost.

PPRSD, the Plant Protection and Regulatory Services Directorate of MOFA, is the lead technical agency for registering fertilizer products, issuing permits for fertilizer imports, testing and laboratory inspection of fertilizer products, and conducting field trials of the efficacy of "new" fertilizer formulations. However, PPRSD remains under-staffed and under-equipped and has only two inspectors per region.[42] To tackle this problem, IFDC's West Africa Fertilizer Program (WAFP) has provided training to PPRSD inspectors and piloted a mobile phone application for registration, tracking, and inspection of fertilizer products. This system is focused on tracking the activities of unregistered distributors and retailers.

The private sector views the costs of fertilizer testing and registration as onerous. They comply with the requirement that new imports be tested at laboratories and in field trials, even when modifications to

[41] One key informant said this suspension took place in October 2016 under the previous administration, but we could not verify this claim.

[42] Ansah-Amprofi (IFDC, 2016) reported only 30 inspectors in 10 regions in mid-2016, with 10 at the PPRSD head office and 20 in the regions. A MOFA official reported 35–40 inspectors. Ansah-Amprofi notes that there should be one inspector per district and 10 at headquarters, which would make a total of 226. An annex table to the report shows that the 20 field inspectors in the 10 regions are supposed to cover 178 distributors and 1,400 registered retailers.

existing NPK formulations are marginal, but they view these procedures as excessive. However, fertilizer importers with blending plants can get around this regulation by blending fertilizer in country to meet the specifications of individual clients such as large farms or plantations without PPRSD testing and approval of the blended outputs. Most informants think, though, that PPRSD might object if blenders produced fertilizer products, with different formulations, for the mass market of maize, sorghum, millet, and rice producers.

LEGAL FRAMEWORK

Key Laws and Regulations

- Plants and Fertilizer Act 803, 2010
- Plant Fertilizer Regulations, 2012 (L.I. 2194)
- ECOWAS Regulation C/Reg.13/12/12 relating to fertilizer quality control in the ECOWAS Region
- Fees and Charges (Amendment) Instrument, 2016 (L.I. 2228)

The legal and regulatory framework for Ghana was established before regional West Africa agreements on fertilizer trade were signed. The **Plants and Fertilizer Act, 2010 (Act 803)** lays out the legal framework for importing, blending, and distributing, and for registering, licensing, testing, and inspecting chemical and organic fertilizers. The **Plant Fertilizer Regulations, 2012 (L.I. 2194)** provide implementation and enforcement details. An ECOWAS treaty was signed by member states in December 2012, after the release of the Ghanaian Act and Regulations. In July 2016, Parliament approved and published the ECOWAS regulations, including **Regulation C/Reg.13/12/12 relating to fertilizer quality control in the ECOWAS region**. Some work remains to be done in harmonizing the ECOWAS and Ghanaian legislation and regulations. Several key informants, including the USAID-funded West Africa Fertilizer Program, think the 2010 Act and 2012 Regulations should be reviewed and modified to better match ECOWAS rules. The GOG plans to review the 2010 Act and 2012 Regulations soon (unspecified timetable).

The Ghana regulatory framework is clear and well-articulated on fertilizer registration, licensing of importers and dealers, and the need for importers to obtain a permit for each shipment. However, importers view this last requirement as onerous, and do not understand why a permit cannot be obtained for imported quantities up to a specified limit over a certain time frame (for example, six months or a year) instead of the current shipment-by-shipment approvals. Importers also note that the requirement for ministerial review and approval can lead to delays in all import processes. Importers stated that inspection of imported fertilizer at the port, where samples are taken, and at importers' warehouses do not impose an undue burden, though a change in the inspection fees from flat amounts for ranges of import volume to a per-ton fee has led to much higher inspection/release costs at the port of Tema.

Rules on bagging fertilizer and labeling bags follow standard international practice. Although there are no limitations on the size of the bag, a 50-kg bag remains the standard practice even as some firms opt for 5-kg or smaller bags for special formulations. Importers claim that the port of Tema can only bag in 50-kg units, but importers with blending units are interested in 25 kg, 10 kg, or even smaller bags and have begun piloting the use of 25-kg bags. Fertilizer imported and distributed under the subsidy program is sold in 50-kg bags, which are not suitable for the smallest and poorest farmers. There are numerous reports of upcountry retailers selling fertilizer in small bags of 5-kg or less. This breaking of bulk typically leads to bagging in improperly labeled plastic sachets, which could invite adulteration or dilution. PPRSD's capacity to conduct point-of-sale inspections is very limited, so the extent to which input dealers engage in fraudulent practices is unclear.

Fees and charges for fertilizer, as outlined in the **Fees and Charges (Amendment) Instrument, 2016 (L.I. 2228)** are inconsistent, particularly for fertilizer inspection (see textbox labelled "Fees and Charges for Fertilizer"). The fees for import and export inspection seem to cover only port or border charges, whereas the "Fertilizer Inspection" fees appear to apply to PPRSD visits to warehouses, blending facilities, and retail points of sale. Even within the Import/Export Inspection category of fees, the scale of fee payments is inconsistent. Similarly, the Fertilizer Inspection Fee listed in the Plant Protection category is inconsistent with the earlier entries. Importers state that the Gh¢10 per MT fee has been applied recently to imported fertilizer (in bulk) and can be significant for large shipments. For a 10,000 MT shipment, the total fee applied would be Gh¢100,000 (US$23,000), which seems very high.

Although not indicated as such, it appears that Category 5 charges, as reflected in the text box) apply only to containerized fertilizer shipments, whereas the fertilizer inspection fee noted in Category 6 seems to apply to bulk shipments of fertilizer. Inspection fees associated with bulk shipments can also be calculated as follows: ((total tonnage /20) x 15) + Gh¢60.[43] This calculation takes tons of bulk fertilizer and converts them into 50-kg (bag) equivalents. Using this method, the cost of inspecting 10,000 MT of imported fertilizer in bulk would cost Gh¢7,560 (approximately US$1,740), far less than using the Category 6 calculation, but not trivial. Importers report that they never receive testing results from these inspections, when samples are taken. Clearly, clarification of fertilizer inspection fees at port/time of entry would be beneficial. High-volume importers of bulk fertilizer report that the Gh¢10/MT charge, which they consider far too high, is most commonly applied at the port.

Registration of a fertilizer product costs Gh¢3,000 or US$690 and is good for two years, with lower-cost renewals (US$500 each). Each company must register each product that it imports. In 2015, Louis Dreyfus had 16 fertilizer products registered, YARA had 22, and Chemico had 19. Fertilizer companies import some of the same products; for example, six companies import urea. Registration of fertilizer manufacturers (who in Ghana's case are blenders) is initially for five years and costs Gh¢1,000 or US$230; renewals are good for two years and cost less (no quote available).

Fees and Charges for Fertilizer (Stated in GHC)

Category 1. Certification and Diagnostic

Registration of fertilizer company: 1,000
Registration of fertilizer distributor: 250
Registration of fertilizer retailer: 100
Application forms: 20 per form
Import permits: 10

Category 2. Import/Export Inspection

Up to 1000: 10
1000 to 5000: 50
5000 to 10,000: 100
Any extra kg ≤ 5000 and > 10,000: 10

Category 3. Product Registration

Registration of importers: 300
Fertilizer import permit: 100
Fertilizer export permit: 100
Product registration: 3,000
Fertilizer Analysis: 400

Category 4. Fertilizer Inspection (per MT)

Up to 1000: 20
1000 to 5000: 30
5000 to 10,000: 50
Above 10,000: 100

Category 5. GCNet Fertilizer Clearance Fee

For first 20-foot container: 60
For subsequent 20-foot container: 15
For first 40-foot container: 75
For subsequent 40-foot container: 20

Category 6. Plant Protection

Importers of plants and plant products registration fee: 500
Registration of fertilizer importers: 1000
Registration of fertilizer manufacturers: 2500
Fertilizer inspection fee: 10 per MT

Source: Fees and Charges (Amendment) Instrument, 2016

Other topics covered by the Plants and Fertilizer Act, 2010 (Act 803) and the Plant Fertilizer Regulations, 2012 (L.I. 2194) include:

- A Fertilizer Register to be maintained by Africa Fertilizer at the regional level (see AfricaFertilizer.org).
- Packaging and labeling with "guaranteed analysis" of content.

[43] See Ansah-Amprofi, Felicia. "Implementing ECOWAS Fertilizer Regulations in Ghana." Report prepared for IFDC/WAFP. June 2016.

- A Ghana Fertilizer Inspection Manual and a Ghana Fertilizer Analytical Manual to lay out methods of inspection, sampling, sample preparation, and analysis. (Note: the team was unable to obtain copies of these manuals).
- Rules governing stop sale, use, or removal orders.
- Establishment and management of an Inspection Fund.
- Rules and sanctions governing mislabeling, adulteration, short weight, and harmful substances.
- Establishment and functions of a National Fertilizer Council.
- Establishment and functions of the Pesticide and Fertilizer Regulatory Division (PFRD).
- Various forms (1–9) and schedules laying out (a) established nutrient levels, (b) penalties for deviation from plant guarantee levels, (c) maximum allowable limits on heavy metal content and variation of nutrient content, and (d) a fertilizer import tonnage reporting form.

The regulatory regime is well laid out and articulated. MOFA plans to address a few inconsistencies with ECOWAS Regulations during an upcoming review of the 2010 law and 2012 regulations.

The principal steps and fees for importing fertilizer are shown in Table 2 below.

Table 2: Regulatory Steps, Costs and Time Required to Import Fertilizer

Regulatory Step and Agency	Description	Time Required	Cost/Fee (GHC unless noted)
Fertilizer product registration (prior to importation) MOFA/PPRSD	Each fertilizer type imported requires laboratory tests of nutrient content & heavy metals.	3 months	3000 per product
	In principle, two cropping seasons of field trials of fertilizer efficacy are required. Not clear if this is always done or if expensive multi-locational files are financed.	6-12 months (in principle)	30,000 – 60,000 per product
Fertilizer import permit MOFA (PPRSD & CSD consulted)	Required for each shipment (not for a period of time & multiple shipments up to a limit). Apply for 1 month in advance of planned shipment arrival.	7 business days	100
Obtain exporter shipping documents (GRA/CEPS)	Bill of lading required for customs valuation and clearance process (initially emailed, which allows importer to start clearance process).	3 business days	
Application for duty exemption (MOF/GRA)	Pre-shipment exemptions were suspended in early 2017; importers are now paying the duty (5% of FOB value of shipment).	8 business days	20
Apply on line for e-permit (CEPS)	Starts the customs assessment and valuation process.		1.8/MT
Vessel arrives at port; unloading (Port of Tema and various service providers)	Port related charges are $9.15/MT. If bagging is done at the port (for compound fertilizer—NPK), $19.65/MT is an added cost.	2-3 days	$9.15/MT to $28.60/MT
Payment of remaining fees (CEPS at port)	Inspection done and test samples are taken. Multiple fees (4.7% of FOB value) paid and customs cleared.	1-2 days	4.7% of FOB value of shipment
Summary	From permit application to port clearance.	≤ 45 days	↑ price per MT by 25%+

Source: interviews of key informants; *Fees and Charges Instrument*, 2016

IMPLEMENTING INSTITUTIONS

Ministry of Food and Agriculture (MOFA)

Key Implementing Institutions

- MOFA, Crop Services Directorate
- MOFA, Plant Protection and Regulatory Services Directorate (PPRSD), Pesticide and Fertilizer Regulatory Division (PFRD)
- Ghana Standards Authority (GSA), Food & Agriculture Department
- Select Committee (of Parliament) on Food, Agriculture and Cocoa Affairs

The Ministry of Food and Agriculture (MOFA) is the key implementing institution in the public sector that regulates the fertilizer subsector. The **Crop Services Directorate (CSD)** within the MOFA promotes "efficient use and management of soil and water resources for sustainable agriculture production" and also "recommends issuance of permits and waivers for the importation of agricultural materials for the crops sub-sector."[44] Additionally, the CSD manages the fertilizer subsidy program for the Ministry.

The **Plant Protection and Regulatory Services Directorate (PPRSD)** has more direct oversight of fertilizer importation and distribution than the CSD, mainly through PPSRD's Pesticide and Fertilizer Regulatory Division. PPRSD (a) conducts lab tests on imported fertilizers; (b) supervises field trials of "new" fertilizer formulations (imported into Ghana); and (c) inspects fertilizer at the port, in warehouses, and at points of sale. PPRSD has two laboratories at Pokuase at the outer edge of the Greater Accra Region: one at the Seed Inspection and Certification Division and the other at the Pesticide and Fertilizer Regulatory Division. The latter is judged to be inadequately equipped,[45] so the Minister has designated four laboratories (two public and two private)[46] to analyze official fertilizer samples. PFRD is able to retain 20 percent of the revenue generated[47] but must provide the other 80

Responsibilities of the Pesticide and Fertilizer Regulatory Division, PPRSD

The Division supervises and trains regulatory Inspectors; publishes information materials; registers and trains pesticide and fertilizer dealers and applicators; keeps records as well as statistics of pesticides and fertilizers; and manages pesticide and fertilizer stocks in the country. It supervises the bio-efficacy trials undertaken by researchers.

Services provided:

- **Pesticide and fertilizer dealers**: Registration, inspection, training on pesticides and fertilizer management, facilitation of removal of obsolete and unwanted chemicals.
- **Pesticide and fertilizer applicators**: Registration, inspection, training on pesticide and fertilizer management.
- **Extension**: Training and technical backstopping on pesticides and fertilizer management.
- **Exporters**: Training of trainers in pesticide and fertilizer management for export certification.
- **Importers**: Sample, inspect, analyze and test fertilizers distributed in the country and prepare appropriate manuals and reports of these.
- **IGOs**: Provide pesticides and fertilizer consumption statistics.

Source: information is taken verbatim from the mofa.gov.gh website description of PPRSD.

[44] MOFA website.
[45] Ansah-Amprofi, 2016.
[46] The two public labs are the Chemistry Laboratory of Ghana Atomic Energy Agency and the Biotechnology and Nuclear Agriculture Research Institute Lab. The two private laboratories are Envaserv Environmental Consult Laboratory and the SGS Ghana Ltd. Lab.
[47] Ansah-Amprofi (2016) reports that PPRSD internally generated revenue increased from Gh¢168,345 in 2013 to Gh¢407,973 \in 2015, equivalent to US$104,609. Revenues for the first quarter of 2016 were on track to exceed the 2015 figure by a wide margin (extrapolated to Gh¢655,800 GHC for the year).

percent to the Ministry of Finance as part of the national consolidated fund. GOG budget allocations to agriculture typically fall under 5 percent of the total budget.[48]

Ghana Standards Authority (GSA)

The **Ghana Standards Authority (GSA)**, under the Ministry of Trade and Industry (MOTI), has a Food & Agriculture Department in its Testing Division that can, in theory, test for fertilizer chemical composition and the presence of heavy metals and other contaminants. In practice, PPRSD takes the lead in testing fertilizers, as well as conducting crop trials to test the efficacy of these fertilizers.

Table 3: Laboratory Capabilities of Different Institutions in Ghana

Institution	Seed Properties	Soil Analysis	Fertilizer Composition	Heavy Metals	Pesticide Residues	Mycotoxins
PPRSD	√		√	√		
Crop Research Institute	√					
Soil Research Institute		√				
Univ. of Ghana at Legon		√				
KNUST		√				
GRA/Food Dept.				√	√	√
Food Research Institute (CSIR)			√			√
Tema Port						
SGS Ghana Ltd.	√	√	√	√	√	√
Envaserv Research Consult Ltd. (ERC)		√	√	√		
Green-EF		√				

Source: interviews with key informants; internet search

Notes: (a) Tests for seed properties include foreign matter content, % weed seed, and germination rate. (b) Another private company claiming laboratory testing capability is Syecomp Ghana Ltd.

Select Committee on Food, Agriculture and Cocoa Affairs

The **Select Committee on Food, Agriculture and Cocoa Affairs** is one of 16 Select Committees of Parliament, composed of 20 members (three of whom are women). This Committee debates and prepares all legislation (acts and regulations) affecting the agricultural sector. It developed the Plants and Fertilizer Act 803 of 2010 as well as the 2012 Fertilizer Regulations. Any future changes to the 2010 Act and 2012 Regulations will require Select Committee recommendations and broader Parliamentary approval.

[48] See ReSAKSS database.

SUPPORTING INSTITUTIONS

Trade Associations

Key Supporting Institutions

- CropLife Ghana
- Ghana Agri-Input Dealers Association (GAIDA)
- Soil Research Institute (SRI)
- Crops Research Institute (CRI)
- Public universities (Legon, KNUST)
- National Fertilizer Council

The supporting institutions for the fertilizer industry are capable but severely under-resourced. The only exception is **CropLife Ghana**, which represents importers of agrochemicals, including fertilizer, pesticides, insecticides, sprayers, and other products. This association lobbied MOFA in late March 2017 for a reinstatement of the fertilizer duty exemption on arrival in the port of Tema and prior to fertilizer distribution. CropLife is composed of the major importers of agrochemicals and blenders, who have the resources to fund the association at an appropriate level. In contrast, the **Ghana Agri-Input Dealers Association (GAIDA)** is starved for funding. Created with IFDC support in 2004, GAIDA has some 4,800 members but the modest fees it charges means that it lacks the financial resources to function effectively.[49] Further, by some estimates, half the agro-input dealers in Ghana, including many small-volume, rural-based dealers outside the regional and district centers, do not count themselves as members of GAIDA. Largely, GAIDA has depended on USAID for support in the past. Currently, some observers consider the organization dormant, while others refute that claim and argue that GAIDA still plays an advocacy role.

Research Institutions

The **Soil Research Institute (SRI)** and the **Crops Research Institute (CRI)** are two key research centers of the CSIR, Ghana's Council for Scientific and Industrial Research. Both have laboratories capable of testing for fertilizer nutrient composition. SRI has done soil mapping in two regions—the Brong Ahafo and Northern Regions—with AGRA support and it has a laboratory that can test soil samples for pH, moisture, and carbon composition. Much of the soil testing to date has shown that most soils in Ghana are acidic, which suggests that liming is necessary to raise the pH to levels that facilitate, rather than impede, plant nutrient uptake. The cost of soil testing by a private laboratory is reportedly Gh¢90 per augur, and five augurs are required per acre of land.[50] Farmers must wait three to four months for the results. Basic soil testing is available from SRI for Gh¢50. CRI is more focused on field crops and can test seed for germination rates and foreign matter in seed, as well as pesticide residue levels. The AgCLIR team did not interview university professors or visit university facilities, but university laboratories are likely less well equipped than the CSIR labs.

The Food & Agriculture Department, under the Testing Division of the Ghana Standards Authority (GSA), claims to have five laboratories for food, drinks, mycotoxins, metallic contaminants, and pesticide residues. According to the GSA website, products are analyzed for quality parameters, pesticide residues, heavy metals, and contaminants for purposes of quality evaluation, certification, and export/import business. Detailed information is provided about the Food Laboratory but not about the other laboratories.

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[49] GAIDA has an initiation fee of Gh¢120. Training costs Gh¢50–100 per session, though there have been none recently. Member dues are reported as minimal.

[50] "Grains Council ponders creating national standard for fertilizer."
http://www.ghananewsagency.org/economics/grains-council-ponders-creating-national-standard-for-fertilizer-89989
In a GGC meeting on May 28, 2015 a West Africa Fertilizer Project official noted that soil testing needs to be done to improve fertilizer formulations for different agro-ecological zones with different soil characteristic. A 2014 IFPRI publication, "Examining the Sense and Science Behind Ghana's Current Blanket Fertilizer Recommendation," noted that it cost about US$25 to test a soil "composite sample" composed of five "soil cores" at plowing depth.

National Fertilizer Council

The **National Fertilizer Council**, created in March 2014, is an advisory body consisting of three representatives of MOFA (the Minister and heads of PPRSD and CSD), representatives of CSIR and EPA, and two private sector representatives—one representing farmers and another representing fertilizer importers and manufacturers. The Council is supposed to meet quarterly, but had met only twice as of June 2016.[51]

SOCIAL DYNAMICS

Women

Women provide much of the agricultural labor in Ghana but typically have less assured access to fertilizer, whether subsidized or not. Fertilizer use among women small-scale farmers is generally low in Ghana, often well below recommended application rates. Approximately 55 percent of farm households use neither organic nor inorganic fertilizer,[52] another 31 percent apply inorganic fertilizer but have not adopted any organic fertilization practices, only 2 percent use both soil fertility enhancement methods, and 12 percent use only organic soil fertility management practices.

Women generally have less access to extension services which are predominantly male, under-staffed, under-financed, and greatly constrained in its capability to offer service options to farmers. As recommended in a 2015 IFPRI/GSSP study, public sector research and extension should "identify region-specific best practices for amending soil conditions" and "transfer region-specific best practices to farmers as well as provide bi-directional learning between researchers and farmers to refine best practices in light of farmers' experiences in their fields." The report goes on to state that "local extension services could provide soil management recommendations that would include nutrient management options in combination with other soil amendments for the various crops, and using improved varieties, aiming to improve the agronomic efficiencies of the fertilizer use, which would in turn raise the demand for fertilizer." Improved targeting of specific fertilizers to highly varied crop and soil requirements (in different agro-ecological zones) requires public sector research, extension to farmers, and leadership.

Women are generally under-represented in MOFA and other agencies that serve the agricultural sector. However, some informants estimate that 30 percent of the agro-input dealers in Ghana are now women, and suppliers report they are reliable and have good repayment records. This figure is higher than the 19 percent reported by IFPRI, based on a census of 2,893 fertilizer dealers in 2009 (of which 612 dealers were in the north).[53]

Regional Differences in Access to Fertilizer

Distance from coastal ports and population centers in the south isolate the three northern regions of Northern, Upper East, and Upper West. Additionally, the geography makes these northern areas more inclined to drought than the six regions in southern Ghana and the transition zone region of Brong-Ahafo. Although the three northern regions make up 29.5 percent of the total geographic area of Ghana, their population accounts for only 17.2 percent of the country's entire population. Low population densities in the north means that distances between farmers and agro-input dealers who sell fertilizer are generally greater than in the southern half of Ghana. IFPRI (2017) found that the distances from farms to extension

[51] Ansah-Amprofi, 2016.
[52] GLSS VI 2012/2013 survey data (APSP, 2015).
[53] Krausova, Marika and Afua Branoah Banful, 2010. "Overview of the Agricultural Input Dealer Sector in Ghana." IFPRI Discussion Paper 01024, International Food Policy Research Institute, September 2010. (http://gssp.ifpri.info/files/2010)

agents, and to the nearest primary school, were highly significant variables affecting the use of subsidized fertilizer.

Education levels in northern Ghana are generally far lower than in other regions. DHS 2008 and GLSS 2004/05 survey data showed that (a) 51 percent of the population in the Northern Region, 43 percent in Upper East, and 41 percent in Upper West had no education and (b) across all three regions, the median years of schooling were one or fewer.[54] The poverty severity index was also reported to be far higher in the northern regions than in the other seven regions.

Given the illiteracy of many farmers in northern Ghana and the lack of reliable cell phone networks (or smartphones), rural radio broadcasts in local languages have proven to be an effective way to reach rural households. One fertilizer importer reported advertising its fertilizer products over private radio station broadcasts in five regions in a variety of languages (most notably Twi, Ewe, and Hausa).

Impact of the Subsidy Program

After eight of the past nine years of fertilizer subsidy programs, use and understanding of the value of fertilizer has increased even though productivity gains have not been dramatic.[55] Value-cost ratios (VCRs) for fertilizer application were at less than 2.0 from 2007 to 2011 in Ghana but then increased in 2012 and 2013 because of higher maize prices.[56] As a general rule of thumb, VCRs should be less than 2.0 to encourage fertilizer use. Moreover, fertilizer has not always reached more isolated farmers far from distribution points in towns.

Of the national recipients of subsidized fertilizer in 2012, those in the three northern regions of Ghana comprise 35.4 percent of the total (39,923 of 112,844).[57] Although small-scale farmers have been targeted (25.7 percent of subsidized fertilizer recipients in 2012), they have not benefitted as much as hoped; in fact, medium- to large-scale farms have captured a disproportionate share of subsidized fertilizer (83.4 percent in 2012). Further, women are less likely than men to receive subsidized fertilizer, because heads of rural households in the north are invariably male.

The overall objective of the fertilizer subsidy program has been inconsistent. In some years, the goal has been to target small-scale, resource-poor farmers. In others, the goal has been to expand cereals production, particularly of maize and rice, by increasing use of fertilizer.[58]

Farmer Education and Attitudes Toward Fertilizer Use

The public-sector support system for fertilizer and improved agro-input use is weak in Ghana. The extension service is severely under-equipped, under-funded,[59] and under-staffed (ratio of 1 agent to 2,500 farmers).[60] As a point of comparison, countries such as Ethiopia have 60,000 extension agents. Furthermore, extension agents in Ghana have multiple responsibilities, such as (a) managing the subsidy

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[54] Ibid.
[55] Maize, millet, and sorghum yields have shown no discernible upward trend from 2008 to 2014 (FAOSTAT data).
[56] IFPRI/GSSP and APSP, Ghana Feed the Future Agriculture Policy Support Project. "Towards a Sustainable Soil Fertility Strategy in Ghana." With contributions of APSP, IFPRI's Ghana Strategy Support Program, the Innovation Laboratory for Food Security Policy (MSU), AFAP. September 2015.
[57] IFPRI, 2017. The IFPRI findings extrapolate from the Ghana Living Standards Survey (GLSS 6, 2012).
[58] Resnick, Danielle and David Mather, 2016. "Agricultural Inputs Policy under Macroeconomic Uncertainty Applying the Kaleidoscope Model to Ghana's Fertilizer Subsidy Programme (2008–2015)." IFPRI Discussion Paper 01551, IFPRI and Innovation Laboratory for Food Security Policy, August 2016.
[59] According to a 2012 MEAS (Modernizing Extension and Advisory Services) report entitled, "Strengthening Pluralistic Agricultural Extension in Ghana," there were 3,500 extension agents for 4–5 million farmers in Ghana. Since many of these officers are not in the field, the ratio of extension agents to farmers is 1 to 2,000 or 1 to 3,000.
[60] This figure comes from an ODI report, "Mapping current incentives and investment in Ghana's agriculture sector Lessons for private climate finance," 2016.

program at the local level, (b) collecting agricultural production and marketing statistics, and (c) other responsibilities that have no direct bearing on applying inputs correctly, based on proper agronomic practices, to enhance productivity.

Many small-scale farmers do not apply fertilizer in recommended doses per acre. Several reasons could explain this phenomenon: (1) limited financial resources and alleged sale of portions of subsidized fertilizer into the secondary market; (2) a widespread perception that urea and the standard NPK formulation (15-15-15) do not increase productivity to expected levels, particularly when applied to field crops where the available varieties are not as fertilizer-responsive as hoped; and (3) in the case of maize, poor performance of local OPV and hybrid seed varieties.

Tension Between Government and Private Sector

The relationship between the government and the private sector in Ghana is lukewarm in most cases, although the current ruling party (NPP) claims to be more business-oriented than its predecessor. The recent GOG decision to suspend import duty exemptions has not been popular with the private sector, which met recently (through CropLife Ghana) with the Minister to voice its discontent. The requirement that an import permit must be obtained for each shipment of fertilizer is also viewed as constraining and time-consuming, as is the regulation regarding two cropping seasons of field tests to determine fertilizer efficacy, particularly for fertilizer formulations that differ slightly from standard NPK formulations (where, for example, a micronutrient or two is added to the mix).

At the same time, the private sector recognizes that the public sector regulatory body, PPRSD, has limited capacity to perform its duties well and in a timely way. The private sector argues that that extant centralization of fertilizer registration, licensing, and permitting approvals in the hands of the Minister of Agriculture leads to significant delay in the process.

Regional Trade Challenges

The fertilizer industry generally supports expanded intraregional trade, but insiders complain about illegal leakage of subsidized fertilizers to neighboring countries and a lag in implementing the ECOWAS treaty to legitimize and foster intraregional trade in fertilizer. Although domestic fertilizer importers and blenders have emerged in neighboring countries, only a handful of Ghanaian importers seemed interested in the regional market. Perhaps this attitude will change if barriers to intraregional trade are dropped and the Ghana fertilizer subsidy program is phased out.

On the ground, the large number of checkpoints along truck roads in Ghana continue to cause delays. Harassment by uniformed agents at these stops also add time and informal costs to transporting goods to Burkina Faso and other West African countries.

PROMOTING MECHANIZATION

An estimated 6,500–7,500 tractors exist in Ghana, but only about half the units are operational.[61] Most are used for land preparation, and some transport inputs and products as well. There are not enough tractors in the country: the estimated "deficit" is at least 5,000 units. An IFPRI/SARI survey conducted in 2013 revealed that imports of used tractors accounted for 79 percent of the tractors in use in northern Ghana, with Massey-Ferguson tractors being the dominant and preferred brand (59 percent).

Only four major private sector importers bring agricultural machinery into Ghana. Many new tractors come into Ghana via government-to-government (G2G) grants and loan programs.

Table 4: Tractors Imported Into and Sold in Ghana

Tractor Make	Country of Manufacture	Distributor in Ghana	New Tractor Sales per Year	Most Common Horsepower
Cabrio	Czech Republic	MOFA/AESD	145 in 2012 & 2013; 100 in 2015	50
Farmtrac	India	MOFA/AESD, 2004-08; Escorts Ltd. Agri-Machinery Group (AMG), now focused on fertilizer/agrochemicals	Imported in 2003-08 (n=1481) in 4 of 5 years	60, 70 (range of 40 to 75)
John Deere	India	Afrigi Ghana Co. Ltd. Works with ADVANCE II in northern Ghana	25-30 per year (approx. 65 thru ADV II since 2012); 500 imported in 2008 by MOFA	55, 65, 75
Mahindra	India	MOFA/AESD, 2007/08; direct importation from Mahindra and Mahindra	232 imported under a G2G deal in 2008	60, 70
Massey Ferguson	UK, Brazil	Mechanical Lloyd MOFA/AESD	15-30 new per year; 111 in 2016	50–90 75
Landini, Same	Italy	Japanese Grant (2KR2005)	50 (2006)	NA
New Holland	Turkey	CFAO Equipment (part of CFAO group)	125 in 2011; 70 in 2014 (Japanese Grants); 111 in 2016/17	72, 75
Sonalika	India	WAATCO (West Africa Agro-Tech Company Ghana Ltd)	35–40 per year	60, 75, 90
Valtra	Brazil	MOFA/AESD	288 in 2016/17	75
Many brands	China	MOFA	540 Shanghai brand in 1997–99; others unknown	50, 65
Used tractors	Multiple	Each importer typically imports small numbers		

Source: Informal interviews with tractor importers/distributors, Agricultural Engineering Services Directorate of MOFA (AESD), and internet research.

Note: In 2008, Mahindra & Mahindra Ltd. publicized its intention to build a tractor assembly plant in Kumasi with Zoomlion Ghana Ltd, but it has not yet materialized.

[61] A 2010 estimate of *functioning* tractors in Ghana by Fonteh for FAO put the figure at 1,736 units. From 2003 to 2016, the government imported 3,456 tractors, with almost half of them being Indian brands (mainly Farmtrac but also some Mahindra tractors). An ACDI-VOCA census of tractors in northern Ghana in 2014 recorded 1,148 tractors.

Most imported tractors range from 50 to 80 horsepower (HP) and on average, do land preparation on 240 hectares per year. There are far fewer two-wheel tractors (or power tillers), which are common in Asia, although some are found in irrigated rice schemes such as the Kpong Irrigation System (Takeshima et al., 2012). The prevalence of larger four-wheel tractors is most likely attributable to concentrated tractor use in the transition zone and in northern Ghana—land-abundant regions of rainfed agriculture—where most tractor owners are larger landholders who also provide land preparation services to surrounding smaller farms.

Many tractors imported into Ghana since the 2000s have been brought in under G2G loan programs (3,456 in total), under which exporting countries provide concessional finance or outright grants.[62] The most recent program between the GOG and the government of Brazil, known as the Brazil More Food International Program, has been a concessional loan of US$95.5 million tied to importing farm equipment manufactured in Brazil.[63] Under this program, the GOG has imported 549 Massey-Ferguson, New Holland, and Valtra tractors and parts. Buyers receive a 60 percent subsidy, but have to pay the other 40 percent upfront (by paying in cash or obtaining a bank loan). Previous MOFA/AESD programs had a smaller subsidy component (30 percent), with farmers required to pay off the balance (70 percent) within three years. Those programs suffered from significant arrears and non-repayment.

Tractor buyers are typically been large farmers and Agricultural Mechanisation Services Enterprise Centres (AMSECs). The latter have been created and promoted by AESD since 2007, but they are privately owned and operated. Although MOFA had planned to establish an AMSEC in each of Ghana's 216 districts, only 89 centers were created by the end of 2014, covering only 41 percent of the districts. In 2016, however, 79 new AMSECs were created through the Brazil More Food International Program, bringing the total to 168 centers.

The IFPRI Ghana Strategy Support Program, underway since 2007, provides research on tractor use, performance, and profitability in Ghana that can inform agricultural mechanization strategy and policy in Ghana. Here are some key findings:

- Tractor ownership is concentrated among medium and large farms that provide land preparation (and sometimes transport) services to smaller farms within a 15–20 kilometer radius.
- Tractor ownership is concentrated in northern Ghana and the transition zones (northern Ashanti Region and Brong-Ahafo), where land is abundant and there are numerous larger farms.
- When tractors are used almost exclusively for land preparation services, tractor ownership and use is barely profitable (in most production zones). Expanding the use of tractors into other agricultural operations (such as seeding, fertilizer, and weeding) and in transporting agricultural inputs and products increases profitability.
- The tractor-for-hire service model of larger farmers providing land preparation and other services to neighboring small farmers is far better adapted and more workable in Ghana than government-created and government-subsidized AMSECs, which typically operate well below capacity.
- Larger four-wheel tractors (≥ 60 HP) are well adapted to northern Ghana, but smaller two-wheel tractors (often called power or rotor tillers) are suitable for small farms and irrigated rice production.

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[62] Import data provided by MOFA/AESD shows that 392 power tillers were also brought in from 2006 to 2015 under G2G arrangements with Japan and India, as well as implements and attachments to the imported four-wheel tractors. Almost all of them are used in (mostly irrigated) rice farming.

[63] This concessional loan bears annual interest rate of 2 percent and has a loan term of 22 years. Divided into three tranches, the first tranche of $35.5 million was used to import 549 tractors and associated agricultural equipment (plows, harrows, planters, seed drills, threshers, shellers, trailers, and harvesters). Houssou et al. (IFPRI), 2016.

- Access to finance is a significant constraint to tractor ownership, because many potential buyers lack their own capital or cannot afford bank loans at rates in the 25–40 percent range. This constraint has led the GOG to import large numbers of tractors (on concessional loan terms) and provide them to recipients with subsidies from 30 to 70 percent. Even with this high degree of subsidization, loan repayment rates are low.
- G2G tractor schemes, in place since the early 2000s, have distorted the market for tractor importation and use. They have crowded out the private sector to a certain extent and biased choice of manufacturer/brand toward new, subsidized tractors manufactured in India, Brazil, Turkey, and China that private buyers would not otherwise buy. There is strong demand for used and reconditioned tractors, imported typically from the EU.
- The role of government should focus on mechanization research and agricultural extension, improving the enabling environment for private sector investment and operations, and training tractor operators, mechanics, and other technicians to support private sector-led mechanization strategies.

LEGAL FRAMEWORK

Importation

Specific farm machinery laws and regulations have not yet been formulated. Therefore, imports of tractors and agricultural machinery face no particular restrictions. Any model/brand and type is permissible. Furthermore, imports of used tractors are accepted. A 2013 survey conducted by IFPRI and SARI, the Savannah Agricultural Research Institute, showed that 79 percent of tractor owners surveyed had acquired used tractors, because the cost of new tractors is considered too high.

Key Laws and Regulations

- Road Traffic Act, 2004 (Act 683) and regulations
- Road Traffic Regulations, 2012 (LI 2180)

Imports of tractors with associated implements are exempt from customs duties, but imports of spare parts are typically dutiable at 5 percent of the FOB (free on broad) value, because they could be used generically for automobiles or trucks. Spares parts that are imported with a particular tractor, and therefore more identifiable as parts for that specific tractor type, can receive exemption from customs duties. No VAT is charged on tractor imports. Imports of tractors are subject to port fees and levies, common to all imported goods, of about 3.5 percent (according to private importers).

Registration and Licensing

No emissions regulations affect tractors, but some Driver and Vehicle Licensing Authority centers do test for emissions of tractors registered for use on roads (typically to transport agriculture-related products and items such as inputs and building materials). Road tractors are also subject to the **Road Traffic Act, 2004 (Act 683)** and its regulations, and must be registered as a transport vehicle or risk fines. Since most tractor owners are medium- to large-scale farmers who provide tractor hire services to nearby smallholders, their tractors do move on rural roads, so their tractors must be registered as transport vehicles.

In practice, all tractor operators must be licensed, because Ghana issues one driver's license and then asks drivers to qualify (based on a driving exam and an eye exam) for different classes of equipment, with Class E for tractors and heavy equipment. Although cars and trucks must be tested annually for roadworthiness, a tractor's roadworthiness certificate is valid forever.

Table 5 shows annual registration figures for agricultural equipment (that is, tractors). These numbers provide a good estimate of tractors in use over the past 10 years and over the past 18 years, going back to 1999. However, the data shown may understate numbers on imports because technically, a tractor does not have to be registered with DVLA if its use is restricted to on-farm only (and there is no transport between farms, or between farms and markets). On the other hand, the understated increment has generally been no more than 20–25 percent above the number of registered tractors.

Table 5: Registration Data for Agricultural Equipment, 1999-2016

Year	Agricultural Equipment	Combine Harvesters
1999	357	10
2000	337	30
2001	303	4
2002	206	36
2003	158	77
2004	510	20
2005	140	192
2006	320	154
2007	259	154
2008	171	266
2009	1411	195
2010	305	171
2011	625	137
2012	957	
2013	995	
2014	1181	
2015	701	
2016	423	
Subtotal: last 10 years	7028	923
Total: 18 years	8935	1446

Source: DVLA.
Note: "Agricultural Equipment" is shorthand for self-propelled agricultural equipment, which refers to tractors

Tractor importers/distributors report that a tractor can operate for 10 years if well maintained. However, some tractors in Ghana do not make it past the five-year mark, given rough use, poor maintenance, and in some cases an absence of spare parts. Therefore, the total numbers registered in Ghana during the past decade—7,028 tractors and 923 harvesters—are probably greater than the number of units still in operation.

Combine harvesters are far less prevalent than tractors. Harvester imports represent only 16 percent of tractor imports from 1999 to 2016 and 13 percent of the tractors imported over the past decade. Because there were no registrations of harvesters after 2011, this suggests that imports have historically been tied to G2G concessional import programs.

IMPLEMENTING INSTITUTIONS

Driver and Vehicle Licensing Authority (DVLA)

The **Driver and Vehicle Licensing Authority (DVLA)** handles vehicle registration and licensing for all vehicles, including tractors. DVLA fees include a testing fee of Gh¢48 for agricultural equipment and a roadworthiness fee of Gh¢25.[64] For combine harvesters the testing fee is Gh¢63 and the roadworthiness fee is Gh¢20. From the DVLA website, it shows that the initial registration fee and roadworthiness test costs 379 Gh¢ for other agricultural equipment. Registration and transfer fees equal 394

Key Implementing Institutions

- Driver and Vehicle Licensing Authority (DVLA)
- Agricultural Engineering Services Directorate (AESD) of MOFA

[64] http://www.dvla.gov.gh/site/pvts

Gh¢. Transfer and road-worthiness fees cost 105 Gh¢. Transfer, change of use, and roadworthiness fees cost 323 Gh¢.

Agricultural Engineering Services Directorate (AESD)

The **Agricultural Engineering Services Directorate (AESD)** is one of the seven technical Directorates of the Ministry of Food and Agriculture.[65] Since its configuration in 1997, AESD has had four units, one of which, the Farm Power Machinery and Transport Unit, deals with tractors. According to the MOFA website, AESD aims to "ensure the availability of farm power and other engineering technologies with sound and sustainable environmental practices for all the categories of farmers, fishermen and agro-processors in Ghana for agricultural production and related activities." In addition to advising the Minister of Agriculture on agricultural engineering issues, including mechanization, AESD "provides technical backstopping to MOFA staff in the Regions and Districts on agricultural engineering related issues."

Although AESD advises the Minister on policy and strategy for agricultural mechanization, we could not locate actual documents with explicit statements on approach. However, we did find indications about concepts and goals: Mechanization is noted as an important part of a broader strategy under METASIP and the Food and Agriculture Sector Development Policy (FASDEP II) to modernize and transform the agricultural sector.[66] MOFA's "Accelerated Agricultural Mechanization Policy" states the goal of moving 5,000 tractors to farmers and private operators. Ghana has not developed a strategic plan for agricultural mechanization—neither has Nigeria—but they both give agriculture high priority in their economic development strategies, and both attribute low agricultural productivity, in part, to inadequate mechanization. In Ghana, government strategy and policy documents and statements recognize the need to engage the private sector in agricultural development, but these broad pronouncements do not clearly define roles of public and private sector stakeholders and articulate ways for the public sector to stimulate private sector-led expansion of mechanization services.

Under G2G import programs, AESD is responsible for distributing tractors, and more than 3,100 of them have been imported since 2003 on concessional terms with the governments of India and Japan. These imports represent 38 percent of all tractors registered since 2003. AESD establishes the criteria for distribution, and the subsidy proportion of tractor acquisition cost has varied from program to program. It is not clear how many of these tractors are still in operation or if they have ever operated enough hours per year to be profitable and generate sufficient revenue to amortize the tractors and reap the funds for reinvestment. Repayment rates for the non-subsidized part of acquisition cost are reportedly poor, although no comprehensive analysis of these G2G tractor import and distribution programs (across years and programs) seems to have been done.[67] AESD has not been mandated to do rigorous monitoring and evaluation of their tractor importation/distribution programs.

[65] Details on the numbers and types of staff were unavailable, but the AESD reported that 10 new hires were needed as agricultural engineers and technicians. Generous increases in civil servants' salaries in Ghana during the past several years have made it difficult to hire new staff, coupled with a net hiring freeze imposed in 2009.
[66] According to Fonteh (2010 and 2013), the FASDEP II or Food and Agriculture Sector Development Policy (2007) has a cross-cutting objective of increasing the area of land cultivated with machinery, and also increasing the ratio of machinery to farmers. The METASIP (2010), which is Ghana's Medium-Term Agriculture Sector Investment Plan, calls for the GOG to establish agricultural mechanization centers in each of Ghana's districts. This reflects the assumption that government intervention is needed to expand mechanization in Ghana.
[67] Japan International Cooperation Agency (JICA), 2015. "Expert on Smallholder Farmers' Access to Agriculture Mechanization in Ghana: Project Completion Report." Task Co. Ltd., Prepared for MOFA/AESD, August 2015.

SUPPORTING INSTITUTIONS

There is no industry or trade association for agricultural machinery importers and distributors. Hence, there is no particular policy or lobbying agenda. The policy environment for tractor imports has been laissez-faire.

Agricultural Mechanisation Services Enterprise Centres (AMSECs)

AESD began establishing **Agricultural Mechanisation Services Enterprise Centres (AMSECs)** in 2009. By 2012, 89 of these centers had emerged, with a combined fleet of 472 tractors or 5.4 units per AMSEC.[68] The AMSECs pay only 20 percent of the subsidized price, with the remaining 80 percent to be paid over four years. In 2016, an additional 79 AMSECs were launched.

A **National Association of Agric Mechanisation Service Centre Operators (NAAMSECO)** was created as an umbrella organization for AMSECs, but the team could not learn much about this group other than a brief reference to a news article in 2011 about setting up an "agricultural plant pool in Tamale" that would make a wide range of agricultural machinery available to AMSECs (and thereby to farmers), including tractors, bulldozers, planters, boom sprayers, harvesters, threshers, seed selectors and grain transporters.[69] ACDI-VOCA's ADVANCE Project also reported that it provided training and capacity building in 2010 that led to a US$4.5 million loan to NAAMSECO from Stanbic Bank. The AMSEC program essentially functions as a credit facility, helping private firms obtain agricultural equipment on subsidized terms.

Many of the original 89 AMSECs were established in the north, including the Northern Region (27), Upper East (6), and Upper West (7). IFPRI notes that 88–90 percent of the revenues of AMSECs and private service providers comes from land preparation services, with only 10–12 percent derived from hauling farm products and providing other transportation services.[70] Few tractor providers can maximize the number of days they plow by providing land preparation services to both the south and north of Ghana. IFPRI found that very few AMSECs and non-AMSEC service providers can work enough days and plow enough acres to run profitably.

Although AMSECs have led to a perceived increase in access to mechanization services and reduced drudgery, saving of labor, improved farming practices, and higher yields, they still do not represent a viable business model attractive to private investors, even with the current level of subsidy.[71] Part of the reason for this has to do with the size/scale of tractors used; providing heavy subsidies on large and more costly tractors may not be the most appropriate solution in a country dominated by small-scale farming. The key reason, however, is that few AMSECs are well-managed and achieve high enough levels of capacity utilization to pay off loans.[72]

AESD operates two agricultural mechanization training centers that train operators, but they do not train mechanics. This responsibility falls to private firms that import and distribute tractors. Afrigi Ltd., which

[68] Houssou, Nazaire, Xinshen Diao, Frances Cossar, Shashi Kolavalli, Kipo Jimah and Patrick Aboagye, 2013. "Agricultural Mechanization in Ghana: Is Specialization in Agricultural Mechanization a Viable Business Model?" IFPRI Discussion Paper 01255, March 2013.

[69] *Graphic Online.*

[70] Benin, S., M. Johnson, K. Jimah, J. Taabazuing, A. Tenga, E. Abokyi, G. Nasser, G. Ahorbo, and V. Owusu. 2012. "Evaluation of Four Special Initiatives of the Ministry of Food and Agriculture, Government of Ghana: Fertilizer Subsidy Agricultural Mechanization Block Farms and Youth in Agriculture National Buffer Stock Company (NAFCO)." Final report, Ministry of Food and Agriculture, Accra, Ghana.

[71] Benin, 2012.

[72] According to a 2015 review of its funding of AMSECs in Ghana, JICA surveyed 29 AMSECs in June 2014. It concluded that most AMSECs provide less than 300 ha of plowing services (across all of the tractors operated by each AMSEC). Poor management and low levels of capacity utilization led to very low rates of repayment on tractor loans among AMSEC startups from 2008-10 (as of 2014).

represents John Deere in Ghana and has an active presence in the north, does train both operators and mechanics. Both WAATCO, which imports and distributes Sonalika tractors from India, and Mechanical Lloyd, the local distributor of Massey Ferguson tractors, also report training operators and mechanics. Private sector firms that provide after-sales service, training of operators and mechanics, and other support play an important role in upgrading the reliability and professionalism of tractor hire services. Indian tractors other than Sonalika, particularly Farmtrac and Mahindra, have been brought in almost exclusively through G2G import programs and distributed by AESD; however, farmers do not prefer these brands because they have a poor track record for providing after-sales maintenance and repair services, and for making spare parts available.

SOCIAL DYNAMICS

Youth Access to Machinery

Data on age distribution of tractor owners in the Ejura/Sekyedumase District of Ashanti Region show that most farmer owners of tractors had been farming for nearly a decade and hired others to plow their land for them before investing in their own tractors.[73] Some observers have noted that the average age of farm owners in Ghana is 55 (not substantiated).[74]

The Block Farm Program, launched in 2009 as a component of the Youth in Agriculture Program, has provided large blocks of arable land for the producing select commodities, with the aim of generating employment and incomes for poor rural youth. The block farms received (a) mechanization services from AMSECs and individual service providers, (b) agro-inputs repaid in-kind by the farmers after the harvest, and (c) public extension services. The program targeted younger farmers from 2009 to 2011 and provided tractor services on highly subsidized terms. The program designers originally intended to wean young farmers off the subsidies and link them to commercial banks. These young farmers were also supposed to graduate from the 2 ha they received under the Block Farm scheme to obtaining their own land and farm 5 ha or more.[75] However, a 2011 evaluation of the program found that MOFA did not actually select younger candidates because of GOG pressure to deliver best results. In fact, on average, only 20 percent of the farmers selected for block farming were younger than 35 years of age.[76]

Tractor Services for Smallholder Farmers

Tractor ownership is concentrated among farmers on medium and large farms. Many of those tractors were imported as used tractors. Farmers primarily purchase tractors to expand their cultivated area, ensure timely access to land preparation services, and provide tractor hire services to other farmers. Most large-scale farmers who own tractors can provide custom hire services, particularly land preparation

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[73] Cossar, Frances, Nazaire Houssou, and Collins Asante-Addo. 2016. "Development of Agricultural Mechanization in Ghana: Networks, Actors and Institutions. A Case Study of Ejura-Sekyedumase District." IFPRI/GSSP Working Paper No. 43, April 2016.

[74] It is often claimed that cocoa farmers average 55 years of age or more. In using panel survey data for 2009–11, collected by Innovations for Poverty Action, Houssou and Chapoto (2014) reported that in three representative districts of northern Ghana, the average farm household head was 44.7 years old. Few of the households surveyed were female-headed (only 3.5 percent).

[75] See https://agricinghana.wordpress.com/tag/funding-for-youths-in-ghana/, 2011.

[76] See IFPRI/GSSP, "Evaluation of Four Special Initiatives of the Ministry of Food and Agriculture, Government of Ghana: Fertilizer Subsidy Agricultural Mechanization Block Farms and Youth in Agriculture National Buffer Stock Company (NAFCO)" (2011). The study concludes, "The youth are not a strong focus of the program as it was conceived of for initiating the programme. Because they are inexperienced, the youth tend to be a risky venture in terms of being able to properly manage the farm and inputs and services given in order to meet expectations, given the pressure AEAs and district MOFA staff face in delivering results and recoveries." (p. 93). Surveyed farmers noted that the plowing services were generally inadequate and late. When queried about improvements, respondents stated the need for more tractors (one per village), harvesters, dryers, and maize shellers.

and transport, to surrounding small farms after completing their own farm tasks. This model actually works well, generating modest to moderate profits in many rainfed production zones where own-farm use is too limited in operating hours and return on investment.

As long as the tractor service market is competitive, smallholders stand to benefit because they can access services from multiple sources. Given the short time window for planting and yielding good crops, when the rains arrive, there is a serious time crunch for accessing land preparation services. Many smallholders in densely populated production zones with small average farm size, such as much of Ashanti Region, may have difficulty getting these services when they most need them. Moreover, tractor owners providing land preparation service prefer payment in cash, with some or all of it paid upfront. Many service providers consider it too risky to accept delayed payment in kind.[77]

Surprisingly, we could not find any evidence that farmer-based organizations (FBOs), or groups acquiring tractors for their own use, provided custom hire services to non-group members.

[77] Japan International Cooperation Agency (JICA), 2015. "Expert on Smallholder Farmers' Access to Agriculture Mechanization in Ghana: Project Completion Report." Task Co. Ltd., Prepared for MOFA/AESD, August 2015.

GETTING CREDIT

Farmers and downstream agricultural market system actors have little effective access to debt-based finance in Ghana for a variety of reasons. First, in general, macroeconomic conditions in Ghana present a considerable challenge for anyone seeking to diagnose weaknesses in the enabling environment for debt-based finance. Second, significant drops in the world market prices for cocoa, gold, and crude petroleum products, combined with profligate public spending, have led to a debt crunch in Ghana. And the impact on the agricultural sector is clear: the overall volume of formal agricultural finance in Ghana is small—in fact, only estimated 4% of the total value of formal business lending goes to agriculture. This is patently out of proportion, because the agricultural sector in Ghana represents an estimated 22% of the country's entire GDP.

Also looming over and impeding agricultural finance is Ghana's markedly high policy interest rate. At 23.5%, representing a drop of 2 basis points from 25.5% in March 2017, public debt in Ghana crowds out private lending for all but the largest and most secure borrowers. For lenders, there is little need to make riskier private loans beyond diversifying their portfolios;[78] given the penchant for government borrowing, financial institutions can make a decent return with relatively little risk. This all represents a particularly challenging proposition for the agriculture sector, which has its own inherent and unique risks.

At present, Ghana holds the dubious honor of having one of the highest policy rates in the world. This has cascading, negative impact throughout agricultural value chains. For many agricultural enterprises, the high policy rate drives up the cost of debt-based finance beyond what profits can support. In fact, agribusinesses have cited commercial lending interest rates ranging from a 29% prime rate for top agribusinesses to nearly 40% for riskier agricultural projects. For most agribusinesses, this is a non-starter. To be clear, and to underscore the point, these rates are not microfinance interest rates with high fixed administrative costs spread over high-volume, low-value loans; these are *commercial lending* rates for bankable borrowers. Rural smallholder famers have no chance.

And for rural smallholder farmers, the extant environment is even more pernicious and excluding. Smaller financial institutions (which are classified as Tier 2 and Tier 3 under Ghana's Banking Act 2004, as amended),[79] although offering financing in micro-size bundles that seem reasonable for use by smallholder farmers and microenterprises, do not obtain the funds they lend directly from the Bank of Ghana. They must source capital pools either from deposit-taking accounts or interbank funds through commercial banks and must pay for that money. Thus, these smaller financial institutions must include their cost of money and charge their fees on top—which drives up the borrowing cost and creates its own cascading impact. More often, small farmers and the smallest downstream value chain actors use pooled family funds, susu[80] where applicable, or with the benefit of key donor and private foundation long-term capital programs, utilize nascent but growing equity markets.

Dozens of key stakeholders cited Ghana's high policy interest rate to be the greatest constraint to agricultural finance, often to the exclusion of other critical limitations. Moreover, the high policy interest rate masks certain fundamental, systemic inefficiencies that contribute to the ratcheting risk in Ghana's financial system, which ultimately add to the exorbitant cost of finance in Ghana.

[78] Portfolio diversification is beyond the scope of this assessment, and so was not covered here. But it is noteworthy that numerous stakeholders raised overexposure by banks in public debt financing as a strategic risk within Ghana's financial system, often as an afterthought.
[79] Ghana's lenders are broken down into four tiers, as stated in Ghana's Banking Act 2004.
[80] Susu are traditional financial intermediaries. They provide an informal, secure way for Ghanaians to save and access their own money and get limited, microfinance-type access to credit.

Almost ironically, Ghana is often lauded as a pioneer in financial sector reform. In 2008, Ghana was the first country to pass legislation launching the first collateral registry in sub-Saharan Africa. But this commendable achievement does not represent the foundation for a comprehensive strategy. A collateral registry is but a valuable tool that addresses an important problem: protecting a secured creditor against unregistered prior charges. This registry, important as it may be, requires an underlying market and legal framework to support its use. In fact, the legal and institutional framework for debt-based financing in Ghana's agricultural sector has several gaps that, in combination, contribute to an undercapitalized sector. An outdated and static legal framework in the hands of improving institutions fetters development of an effective, debt-based financial system.

The World Bank Enabling the Business of Agriculture gauges certain regulatory factors in Ghana's agricultural finance system, and is worth reviewing (see the textbox).[81] The EBA indicators for Finance capture the specifics of the legal framework in listed categories quite well for Ghana. Agent banking, e-money regulations, and collateral registration are all relatively sound, although certain gaps exist and are worth mention. MFI regulation also has key gaps, although for agricultural finance this has less urgency in Ghana, where 90% of the loan portfolio for MFIs go to SMEs outside the agricultural sector. Warehouse receipts can serve as a sound source of collateral in Ghana, although more analysis must be done to ascertain why warehouse receipts work for some commodities in Ghana, such as cocoa—a possible outlier—and why they have not worked particularly well for other commodities, such as grains.

World Bank Enabling the Business of Agriculture 2017 Scores: Finance

Branchless Banking	
Agent Banking Index	*4.2/5 (84%)*
E-money Index	3.5/4 (70%)
Movable Collateral	
Warehouse Receipts Index	***0/5 (0%)***
Doing Business Getting Credit Index	6/8 (75%)
Non-bank Lending Institutions	
Microfinance Institutions Index	*4/7 (57%)*
Financial Cooperatives Index	5/7 (71%)

LEGAL FRAMEWORK

The system of laws and regulations governing finance in Ghana provides well for the needs of the agricultural sector. Clear bank and non-bank financial supervision and reporting rules, prudential regulations, trustworthy payments systems, and credit ratings systems all reflect good practices that create a stable legal foundation for accessing credit. Yet important gaps remain; Ghana has a poorly integrated secured transactions regime, duplicative registries for company charges, and an insolvency regime that fails on most counts to protect the best interests of secured creditors. Enforcement challenges exist, yet are resolved primarily through out-of-court enforcement mechanisms.

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[81] While not a particularly comprehensive treatment, the World Bank's Enabling the Business of Agriculture Index provides a good basis for understanding some of the constraints uniquely impacting agricultural finance. Notably, the World Bank's finance indices use perceived good practices as determined by the World Bank to gauge the overall quality of the formal legal and regulatory framework. This treatment has certain drawbacks; namely, in certain instances the nuance of the local context makes the data less relevant. For example, in Ghana a review of financial cooperatives is of relatively little importance because the main source of agricultural finance in Ghana are 149 Rural and Community Banks, which by law are limited liability companies, not cooperatives. Further, the lack of a formal legal framework is not dispositive of a problem. In Ghana, warehouse receipts have been attempted, but the market has had little appetite for using them for collateral. Regulation can enable or stifle innovation; it requires a sweet spot that allows sufficient time for market options and approaches to be tested. This important nuance should not be missed, and readers should not misconstrue a low EBA score to indicate a clear gap; the country context is critical in this analysis.

The **Banking Act, 2004**, as amended in 2007 and the **Non-Bank Financial Institutions Act, 2008** provide the basis for banking supervision, capital adequacy, and fiscal stewardship for all financial institutions in Ghana, with authority vested within the Bank of Ghana. Licensed banks and non-bank financial institutions received licenses to operate within certain tiers of licensure. Each tier has distinct service offerings, business form requirements, reporting obligations, and minimum paid-in capital requirements.

Secured Transactions

An effective secured transactions regime enables entrepreneurs to pledge the value of existing assets—a charge or security interest—to assure creditors that loan repayments will be made on schedule and in full, and provides a clear path forward for recovery when borrowers default. Ghana boasts one of the most advanced secured transactions regimes in sub-Saharan Africa, with clear laws and institutions to help drive down risk premiums in the system of accessing credit. Yet crucial elements of a modern secured transactions system simply do not exist among the common law and the proliferation of finance laws and regulations across Ghana.

Key Laws and Regulations

- Banking Act, 2004 (Act 673) as amended in 2007 (Act 738)
- Non-Bank Financial Institutions Act, 2008
- Mortgages Act, 1972 as amended in 1979
- Home Mortgage Finance Act, 1993
- Borrowers and Lenders Act, 2008
- Borrowers and Lenders Bill, 2017
- Finance Lease Act, 1993 (PNDCL 331)
- Guidelines for Dedicated E-Money Issuers
- Insolvency Act, 1962 (Act 153)

For operating loans, real property often serves as a critical source of collateral. In Ghana mortgages, charges secured by land, are governed by the **Mortgages Act of 1972 (as amended in 1979)**, the **Land Registry Act of 1962**, the **Land Title Registration Act**, and the **Home Mortgage Finance Act of 1993**. Formally titled land has few limitations as collateral; land markets confer a high premium on immovable property with formal, uncontested title and banks will readily write a loan secured by a mortgage.

In Ghana, nearly 80 percent of the land is held in customary title, and significant variation exists between different regions. Under customary law, ownership of the land is vested in the tribal community, with a hierarchical system of chiefs and paramount chiefs who allocate land use rights. Ghana's land tenure system creates few formal legal barriers to the use of land to collateralize a loan, and informal land use rights for land held in customary title may serve as collateral where certain formalities are observed. Where land use rights have been formally recognized, banks have used customary land use rights as partial collateral for a loan. However, customary land use rights are rarely used to fully secure a loan, and uncertain enforcement leads banks to heavily discount the estimated economic value of the customary land by 85 percent or more, which effectively precludes customary land use rights as a viable basis for collateral. In the rare instances where a bank indicated acceptance of customary land as collateral, it was simply additional collateral on top of a higher-value asset.

For movable collateral, the **Borrowers and Lenders Act, 2008** establishes the legal foundation for a modern collateral registry in Ghana and addresses gaps in creditor/debtor relations. The act took effect in 2009. The Borrowers and Lenders Act states a number of standard terms regarding finance contracts, including terms around notice, terms for settling the debt, advance payment terms, and granting oversight authority to the Bank of Ghana. Section 25 of the act establishes the process for registering a charge (security interest) with the Collateral Registry and requires filing the charge within 28 days of its creation. Notably, where the borrower is a company, the either the lender, borrower, or an interested third party must create the charge in the Collateral Registry under the terms of the Borrowers and Lenders Act, but must also create a redundant charge with the company registry of the Registrar General, also within 28 days, to satisfy section 107 of the Companies Act 1979.

The act also provides procedures to protect lenders when borrowers default. Section 34 of the Borrowers and Lenders Act allows extrajudicial enforcement by taking possession of the collateral—that is, if possession can be done peaceably, a lender may simply take possession. In contentious situations, a lender need not go to the courts for judgment; they may go directly to the police with proof of the charge and notice of default and the police may seize the collateral.

The Borrowers and Lenders Act received poor reaction from the finance community, because the act has several significant, critical gaps. Nearly from inception, the Bank of Ghana promulgated implementing regulations as stopgap measures. For example, as enacted, the Borrowers and Lenders Act was silent on public access to the Registry and its information; it did not require lenders to amend or release their charges upon satisfaction of the debt; and the provisions regarding priority of registrations and amendments to registrations were unclear. However, a new Borrower and Lenders Bill that will comprehensively address these gaps is currently under review in the Parliament and is expected to be voted on later in 2017.

Leasing

In Ghana, capital leases are governed by the **Finance Lease Act, 1993** (PNDCL 331), which provides the legal authority for non-possessory ownership and thus enables the development of financial lease markets in Ghana. Section 6 of the Finance Lease Act gives the Bank of Ghana the primary mandate to establish a registry for financial leaseholds. This registry has merged with the Bank of Ghana's Collateral Registry.

Warehouse Receipts

Warehouse receipts systems can provide a source of financing. Receipts are backed by stored agricultural commodities stored in bonded warehouses. Lenders may use these receipts as proven, secure collateral. Further, where the system is recognized by law, warehouse receipts are negotiable instruments, allowing for considerable flexibility in transferring ownership without the burden of physical transfer. A licensed and certified warehouse operator reviews the quality of the product to ensure it meets minimum quality standards and, upon acceptance, generates a receipt certifying to the quantity and quality standards of the product. Once stored at the warehouse, access to the commodity is outside the control of the farmer or trader, providing third-party validation and protection of the commodity.

Ghana has no formal law establishing standard rules or regulations for a warehouse receipt system, and has little apparent appetite to move in this direction. The Ghana Grains Council offers an informal warehouse receipts service with 12 licensed and bonded warehouses comprising 54,600 MT of storage. Yet this service is likely unsustainable as a stand-alone model, and numerous stakeholders expressed little interest in using it.

The absence of a formal warehouse receipts system in Ghana may in fact be a rational consequence of Ghana's market dynamics. High volatility in staple grain prices in Ghana create significant risk attending a model based on temporal arbitrage.[82]

Payment Systems and E-Money

Since 2012, Ghana has made great strides in opening up mobile money platforms. This is among the brightest spots in Ghana's financial system, and perhaps the next big investment toward including rural locales in the Ghana's financial sector. Mobile money markets have seen exponential growth in the number of subscribers; nearly 19 million subscribers registered with one of Ghana's four major mobile money

[82] USAID EAT Project, "The Market for Maize, Rice, Soy, and Warehousing in Northern Ghana", 2012. The study found that warehousing business models based on extracting profits from temporal arbitrage would have broken even or made profit in only five of the nine years preceding 2012.

operators, Tigo, Vodafone, MTN, and Airtel, as of 2016.[83] With nearly 35 million total subscribers, more than half of which hold a mobile payment account, Ghana has a nearly 130% mobile penetration rate.[84]

As the market for mobile phones and mobile payment systems in Ghana has burgeoned, the regulatory framework has followed suit. The Bank of Ghana has taken a patient and responsive approach to regulating e-money and mobile payment system platforms, engaging in rigorous discussions and dialogue between key players ranging from mobile network operators to e-money issuers to banks. Under the authority of Payment Systems Act and its mandate to regulate electronic money transfer, the Bank of Ghana has issued **Guidelines for Dedicated E-Money Issuers**, which enable non-bank institutions to establish dedicated e-money platforms outside of banks, and to manage and maintain mobile money payment systems, under regulation and supervision by the Bank of Ghana. These guidelines replaced previous guidelines that treated e-money issuers as branchless banking agents.[85]

The e-money guidelines extend the supervision and consumer-protection duties established under banking regulations to banks and non-bank financial institutions, and recreated transparency and security requirements for transfers. Rather than imposing prescriptive business models or approaches, the Bank of Ghana mandated fiduciary duties and standards of care for clients of dedicated e-money issuers, leaving the model open for industry experimentation and innovation.

As noted by one e-money market player, ownership of the float[86] remains the single biggest outstanding question in Ghana's e-money space in. The operative questions is this: until a transfer is completed, who owns the interest earned the float? Originally an inconsequential value, the spot value of the float as reported in March 2017 was nearly Gh¢1.5 billion, equal to almost US$350 million—so, even at 0.5% interest, that float would be worth US$1.75 million to someone. Some countries, such as Honduras, mandate that cash in a mobile wallet account be locked in a trust account, with a par value of currency, with no interest accruing and no interest payable to e-money subscribers. In Ghana, banks that hold the float could use the float, although a regulatory seesaw on the issue has resulted in an unclear path forward; with interest currently gained on the accounts held in trust.[87]

Enforcement

Banks and financial institutions can offer better financial terms when greater certainty exists that the collateral given to them is of sufficiently value, and be reached by them, to make them closer to whole. In

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[83] Bank of Ghana Payment Systems Statistics, First Quarter 2017.

[84] Based upon figures reported by the Ghana National Communications Authority for 2016.

[85] Originally treated similarly to deposit-taking financial institution agents, previous dedicated e-money issuers were required to coordinate with banks and to adopt a business model mandating a "many to many" approach. This approach required cross-platform interoperability for all e-money payment systems. This model was in line with the World Bank's Enabling the Business of Agriculture (EBA) Index approach, whose scoring methodology encourages mandated cross-platform interoperability. According to a stakeholder in the Bank of Ghana-regulated e-money payment systems at the time, this model sounded good in theory but in practice the "many to many" approach had a chilling effect on investment in mobile payment platforms and resulted in slow uptake by mobile network operators. If dedicated mobile money platforms must be interoperable across multiple networks, then there is little competitive advantage to investing in scaling up mobile money payment platform innovations. Issuance of the guidelines replaced prior guidelines, including the "many to many" mandate, which has resulted in a proliferation and diversification of e-money innovations and e-money market growth.

[86] The float is "duplicate money" present in a banking system between the time a deposit is made in a recipient's account and the money is deducted from the sender's account.

[87] The sources of this section are based on regulatory intent in the introduction of the guidelines and supplemented by primary data collection through local stakeholder interviews. For further and slightly varied treatment of the topic, see Buruku, Buddy and Stefan Staschen, "How Ghana Set Its Rules on Interest Payment on e-Money Accounts", blog post, June 29, 2016, available at http://www.cgap.org/blog/how-ghana-set-its-rules-interest-payment-e-money-accounts.

Ghana, the law provides clear rules enabling judicial decisions as well as out-of-court debt enforcement. For example, under the **Home Mortgage Finance Act, 1993,** the lender may take possession of the land secured by a registered mortgage without further judicial action if it is possible to do so peaceably.

Lenders may utilize the slow and costly court system for enforcement, and will on occasion--particularly when banks desire to set an example. In Ghana, lenders have six years from default to initiate a claim.[88] During that time, most charges are disposed of amicably through either alternative dispute resolution or submitting the charge to the growing number of private collection agencies across Ghana. Further, as noted above, for credit agreements covered by the Borrowers and Lenders Act, lenders need not obtain a judgment against a defaulting borrower to take possession of collateral, although lenders will often obtain a judgement when they perceive a risk of legal uncertainty regarding the terms of the finance agreement. As noted by one bank, a good lawyer with a clearly drafted finance contract is the best protection for a lender, and can lead to efficient resolution.

Debt recovery becomes far more challenging when the borrower becomes insolvent. Although less significant than laws regarding collateral, the treatment of insolvency tends to have an impact on the value and volume of lending in a country. Under a modern insolvency framework, creditors or debtors may file for a court-supervised reorganization when an otherwise viable business entity runs into financial distress; debts and payments are reorganized to preserve the value of the ongoing business. In many circumstances, this is preferred, because creditors seek recovery, not punitive liquidation. But statutory reorganizations are not an option in Ghana.

Where a negotiated, a consensual workout/debt restructuring is not viable, and because statutory reorganizations are not available, creditors are best served by a system that has positive impact on the value and volume of lending by providing for orderly prioritization of claims. Unfortunately, this is not the case in Ghana. The **Insolvency Act, 1962 (Act 153)** dates back before the development of workouts through debt restructuring, and offers only a dated and draconian system centered around liquidation. Furthermore, the Insolvency Act does not establish a clear priority for claims; rather, it leads to a scrum with the court virtually all authority and discretion to decide the order of payments. In virtually all insolvency regimes, the judiciary typically maintains wide latitude to retroactively modify prioritization in instances where gross injustice may occur, however this power exists as an exception to an established process for prioritizing claims.

In contrast, most modern insolvency frameworks provide for creditor priorities by law, and give secured creditors a higher priority claim. This practice enables lenders to offer competitively priced financing by mitigating risk exposure and passing along the value of lower risk to borrowers in competitive financial markets. In practice, the system in Ghana has been described as a "race to the courthouse" to establish the veracity and priority of claims against the debtor. This system reduces the overall recovery likely of secured lenders, driving up the risk of secured lending, and as a result, the cost of finance.[89] Ghana's Parliament is reviewing a new Insolvency Law, but political capital is rarely spent on insolvency reform. Nevertheless, to encourage creative destruction within Ghana's economy and facilitate improved access to finance, modernizing the legal scheme for insolvency is necessary.

IMPLEMENTING INSTITUTIONS

Bank of Ghana

The Bank of Ghana was created by act of Parliament in 1957 to serve as the central bank responsible for managing monetary policy and ensuring prudential stewardship of the financial sector. The Bank of Ghana

[88] The Ghana Limitation Act, 1972 (NRCD 54) provides a statute of limitations that bars a new claim after six years.
[89] The World Bank's annual Ease of Doing Business index hypothetical case study estimates that a creditor in Ghana would recover 23.7 cents on the dollar from an insolvency proceeding.

maintains primary supervision responsibility and authority for all banks and most non-bank financial institutions, except for financial cooperatives, oversight of which is shared with the Department of Cooperatives of the Ministry of Employment and Labour Relations. The Bank of Ghana's mandate also includes regulating payment systems throughout Ghana; it is the primary governmental body responsible for regulating mobile-based currency transactions.

By most accounts, stakeholders perceive the Bank of Ghana to be a largely technocratic, apolitical organization. The Governor and Deputy Governor are appointed and serve five-year terms. The Bank of Ghana has a high degree of professional proficiency in undertaking data-driven policy implementation. Although criticized widely for maintaining high interest rates, the Bank of Ghana has done so while navigating uncharacteristically low export prices for gold, cocoa, and crude oil combined with spikes in public debt.

The Bank of Ghana provides ready access to virtually all current laws, regulations, rules, and guidelines to the public free of charge through its website. This access is substantially more open and transparent than many other government agencies in Ghana. Representatives of the Bank of Ghana could speak easily to the subject matter as regulated. Notably, the Bank of Ghana representatives sought regular stakeholder dialogue with the private sector on new rules and regulations, and many private sector representatives concurred.

Collateral Registry

Ghana's Collateral Registry is housed within the Bank of Ghana as a semiautonomous agency with a singular function—to serve as the central registry for most charges and collateral in Ghana. The Collateral Registry is the primary institution for registering and searching charges (security interests), and discharging them when debts are satisfied. The **Borrowers and Lender Act, 2008** established the legal mandate for creating the Collateral Registry. Implementing regulations were passed in 2009 and operations formally began on February 1, 2010. This means that all registrable charges overseen by the Bank of Ghana after 2009, including financial leases, are now registered in the Collateral Registry.

The Collateral Registry has a minimum charge value of Gh¢500. Collateral may be movable, immovable, or intangible so long as sufficient description of the property enables parties to clearly identify it.

Ghana also maintains an online Collateral Registry with a straightforward web-based platform that allows simple access for all financial institutions throughout the country. Indeed, any member of the public may request access to the registry. The Collateral Registry is updated in real time and easily searchable for a Gh¢ fee, receiving praise from financial sector stakeholders.

However, the Collateral Registry does not have the exclusive mandate to perfect a charge and to serve a registry function. This function is shared across different institutions. Of special note, the **Registrar General**, housed in the **Ministry of Justice and Attorney General's Department**, maintains a special registry for charges based on company properties. This is not unique, but two registries are not fully integrated, leading to the risk that erroneous or conflicting entries may exist for the same charge on the same property. Furthermore, this creates an extra due diligence step for lenders seeking to conduct a comprehensive review of potential charges on a property.

To perfect a charge, a lender must register it with the Collateral Registry not later than 28 days after it is created. Registration of a charge with the Collateral Registry requires simply the completion of a template form and payment of a Gh¢10 fee;[90] this process has been described as simple, straightforward, and speedy. The form describing the collateral may be specific or general, and may be submitted in person or electronically. According to the common law, if a charge is not filed in the Collateral Registry within 28

[90] Revised Fees for the Services of the Collateral Registry, Notice No. BG/GOV/SEC/2013/10, 2013

days, it is automatically void; however, the Registrar of the Collateral Registry has the discretion to extend the 28-day period.

Similarly, to perfect a charge in the Companies Registry, the charge must be registered with the **Registrar General** within 28 days after it is created. Failure to do so renders the charge void. Unlike a charge created under the Borrowers and Lenders Act of 2008, the Registrar General's office has no discretion to grant an extension of the 28-day filing deadline for any reason. An extension can be obtained only via judicial order.

Credit Bureaus

Three private credit bureaus operate in Ghana, all licensed and supervised by the Bank of Ghana: Dun & Bradstreet, HudsonPrice Data Solution, and XDS Data Ghana Limited. These credit bureaus, based in Accra, provide credit histories for loan applicants representing approximately 15–18 percent of all Ghanaians.[91] Since 2008, credit bureaus have supplied both positive and negative repayment data, allowing for a comprehensive creditworthiness score based on the totality of an individual's payment history.

Credit histories generated by the three bureaus are high quality and draw from a comprehensive range of lending history data points for each borrower, although data is only gathered from lending institutions supervised by the Bank of Ghana. This means that retailer or supplier payment histories, utility company payment histories, and other data sources do not factor into credit bureau reporting. This creates a circular problem in Ghana: banks tend to avoid lending to a borrower that has no credit history, but that borrower cannot generate a credit history without getting his or her first bank loan.

A notable addendum to formal credit reporting is warranted here. Although it is too early to tell for sure, e-money platforms, described above, represent a potentially disruptive technology that might compel credit bureaus to include data on vendor and utility payments. As a side effect of the reporting requirements for dedicated e-money issuers, mobile money platforms generate robust, collectible data on income and payment histories for vendors who accept mobile money. Farmers who use e-money to purchase their fertilizer bags or make structured payments for vendor-financed seed purchases could use this payment history, maintained by a neutral and trusted third party, to create, build, or verify a solid credit history. Notwithstanding disclosure and privacy regulations that must be considered, banks and financial institutions have expressed interest in the opportunity to utilize this payment system data particularly for previously unbanked customers, thus offering a potential onramp for new borrowers to access the financial sector, and a way for lenders to increase business.

Enforcement Bodies

Under the law, **Police** and the **Courts** hold important positions in the enforcement of finance contracts. As noted in the legal framework above, the Borrowers and Lenders Act, 2008 established the rights and obligations between borrowers and lenders, including enforcement procedures available to protect lenders when borrowers default. If relations between the parties are amicable, a lender may simply take possession of any collateral registered with the Collateral Registry upon a minimum of 30 days' notice to the borrower. If relations have soured, a lender may seek the assistance of police upon presenting evidence demonstrating adequate notice and a failure to cure by the borrower. Police are empowered to seize the collateral without a separate court judgement. In practice, if the borrower-lender relationship becomes contentious and there is a threat of litigation over the terms of the contract, a lender can seek a judgment by the courts, although lenders use courts only as a last resort. Lenders interviewed for this report indicated that although the courts are generally transparent and the outcome is predictable, the process can be slow and costly because of significant legal fees.

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[91] This figure is based upon estimates received from stakeholders in Ghana. The World Bank's Ease of Doing Business Index estimates that approximately 16 percent of adult Ghanaians have a credit history.

SUPPORTING INSTITUTIONS

Banks and Non-Bank Financial Institutions

Banks and Financial Institutions. In theory, agricultural enterprises in Ghana have access to a wide array of banking services and service providers. The Banking Act 2004, as amended, organizes financial service providers into four tiers, with varying degrees of oversight and obligations, and with distinct financial service offerings available (see table below).

Table 6: Financial Services

Tier	Lender Type	Structure/Capital Requirements and Authorized Services
Tier 1	Commercial banks Rural and community banks Savings and loans Finance houses	• Corporation • Minimum paid-in capital: Gh¢5 billion for Ghanaian bank; Gh¢100 million for Rural Bank • 10% capital adequacy ratio • May take deposits • May lend, offer financial leasing, invest in financial securities, transmit money, issue/administer credit and debit cards, money markets, foreign exchange (forex), credit reference, electronic banking, etc.
Tier 2	Susu companies Credit unions Financial NGOs	• Companies limited by shares • Minimum paid-in capital: Gh¢100,000 per branch • 10% capital adequacy ratio • May take deposits • May not offer checking accounts; no forex
Tier 3	Money lenders Non-deposit taking FNGOs	• Companies limited by shares (money lenders) • Minimum paid-in capital: Gh¢60,000 • Gearing ratio not to exceed 8 times capital • May not take deposits, but may accept deposits as collateral • May offer microloans
Tier 4	Individual susu collectors Individual money lenders	• Any business registration form, but must be formal • No paid-in minimum capital • Only susu collection or money lending services

For accessing agricultural finance, the network of 140 rural and community banks (RCBs), which are spread across Ghana, provide the most significant pool of funds and represent the largest tranche of capital available for agriculture. Rural banks that are organized as limited liability entities are licensed to provide Tier 1 services in Ghana, enabling the fullest range of banking products available.

Bank and Non-Bank Financial Institution Associations

Since 1980, the **Ghana Association of Bankers (GAB)** has served as the primary industry association and advocacy body on behalf of all banks in Ghana. The GAB provides banking industry analysis and convenes its members to establish policy priorities and to coordinate collective review of legal and regulatory reforms.

The **Ghana Microfinance Institutions Network (GHAMFIN**) is a network of non-bank financial institution apex organizations that collectively provide policy advocacy, organization, industry monitoring, and capacity support. In total, its membership consists of nearly 2,500 non-bank financial institutions, whose combined capitalization is estimated at 13–15 percent of total banking assets in Ghana.

GHAMFIN serves as a sharing and coordination network for the following apex organizations (and their constituent members):

- Ghana Association of Savings and Loans Companies (GHASALC) – 31 members
- Association of Rural Banks (ARB Apex Ltd.) – 139 members
- Ghana Association of Microcredit Companies (GAMC) – 560 members
- Money Lenders Association of Ghana (MLAG) – 85 companies and 550 individual members
- Association of Financial NGOs (ASSFIN) – 47 members
- Credit Union Association (CUA) – 500 members
- Ghana Cooperative Susu Collectors Association (GCSCA) – approximately 600 members

Supporting Institutions

- Banks and Non-Bank Financial Institutions
- Associations representing financial sector actors
- Ghana Microfinance Institutions Network (and its constituent members)
- ARB Apex Bank
- Ghana Incentive-based Risk-sharing Agricultural Lending scheme
- EXIM Bank of Ghana

Uniquely, **ARB Apex Bank Ltd.** serves as both an industry association and as a *de facto* central bank for Rural Banks. ARB Apex Ltd. registered as a public limited liability company in 2000, and its shares are owned by Ghana's rural and community banks. ARB Apex Bank provides commercial banking services to clients, but also undertakes inspections and provides supports with rural bank supervision.

GHAMFIN and its constituent associations claim a positive relationship with the Bank of Ghana and the Ministry of Finance, touting an inclusive approach toward policymaking. GHAMFIN-affiliated associations regularly engage in dialogue with those public entities about policy priorities, and have had opportunities to provide feedback and engage in developing a new Financial Inclusion Strategy set to be launched later this year.

Agricultural lending poses unique risks and constraints for financial institutions. Over the years, numerous government initiatives and private social investor schemes have sought to encourage greater access to finance for Ghana's agricultural sector.

Value chain financing schemes have worked to some extent in Ghana, and are worth mention. The USAID Ghana Agricultural Development and Value Chain Enhancement (ADVANCE) project supplies 70% subsidies for approximately 20 tractors purchases per year by outgrower businesses, either nucleus farmers or other business service providers targeting smallholder farmers. Routed through local banks and savings and loan companies, approximately 60 outgrower businesses have received subsidized tractors in the course of the project.

De-risking Schemes

GIRSAL. In 2015, with the advice and support of AGRA and with technical inputs from the Ministry of Agriculture, on December 5, 2017, the Bank of Ghana announced the launch of the **Ghana Incentive-based Risk-sharing Agricultural Lending (GIRSAL)** scheme, which is intended to boost financial access to agricultural value chains that have potential for either import substitution or export. GIRSAL will apply a 6-pillar approach to mitigate unique risks of agricultural finance including both supply-side and demand-side interventions. GIRSAL includes:

1. A Gh¢100 million Risk-Sharing Fund, intended to create new financial products to spread lending risk.
2. A Technical Assistance Fund to (a) address technical constraints in agricultural lending models and (b) understand gaps in order to help commercial banks develop internal risk analysis models and new product designs that reflect the needs of agricultural business cycles.
3. An agribusiness Insurance Facility to develop insurance products relevant to agricultural risks.

4. A Bank Rating System that will rate the level and quality of participation by commercial banks in agricultural lending.
5. Rewarding Systems design subsidies that further encourage bank lending for banks that score high in the Bank Rating scheme described above.
6. A Digital platform to leverage the authority of the Bank of Ghana and its e-money engagement, in order to ensure that the agricultural sector benefits from advances in e-money development.

Although GIRSAL has publicly launched, there may be justifiable concern about when or if each initiative will actually roll out.

Similarly, the **EXIM Bank of Ghana**, a newly minted amalgamation of the former Eximguaranty, Export Finance Company and the Export Development and Agricultural Investment Fund (EDAIF), has expressed an intention to offer under-market interest rates to commercial banks that offer loans to the agricultural sector. Details of the program are scant, since the law formalizing the EXIM Bank was just passed in March 2017. The legacy EDAIF group within EXIM Bank was capitalized by a now-expired export levy that generated Gh¢80 million per month, and has a current capitalization of Gh¢779 million.

Although the export levy has expired, EXIM Bank intends to continue to offer loans at subprime rates to support agricultural commodities with export potential, as well as agro-processing, storage, and other value-adding activities. At present, there is no apparent source of future funding to refinance these subprime loans, which are unsustainable by design. According to the EXIM Bank, although EXIM has historically served to buy down risk by offering subprime interest rates to commercial banks, the new law is likely to include a provision allowing EXIM Bank to offer commercial banking services direct to borrowers. However, EXIM has no collections capacity, so this development is unlikely to happen in the near future, if ever.

SOCIAL DYNAMICS

Who Needs the Risk?

The agricultural sector faces unique risks as a sector, including (1) often volatile prices, (2) weather, especially for rainfed production, (3) sometimes unpredictable land use rights, and (4) pests. Absent artificial controls, business sense controls: capital flows to those deals that strike the best balance between risk and return. In Ghana, which is rated B3 by Moody's ("stable" according to S&P though still not investment grade), government crowds out most private debt, floating bonds at rates that price risk out of the market. In 91 days, investors can earn 14% risk-free with the full backing of the Government of Ghana. How is a farmer to compete?

In short, financial institutions have little need to accept the risks involved with Ghana's agricultural sector. Frequently, agricultural stakeholders have expressed frustration directed at the banking sector, where government and donor programs have offered de-risking funds yet interest rates have barely budged. Agricultural stakeholders have also consistently expressed the reasonable, yet flawed argument that government should enforce mandatory portfolio minimums on banks and non-bank financial institutions regulated by the Bank of Ghana as a condition to keep their operating licenses. Notwithstanding the unintended consequences that would almost certainly result, this drastic solution overlooks the culpability of public financial management on the supply and cost of capital for the private sector. To improve access to finance—for the private sector in general and the agricultural sector in particular—the Government of Ghana needs to take critical steps to improve the overall enabling environment for finance.

Women and Credit

Access to credit and financial services is challenging for rural Ghanaian agribusinesses. Access to credit for women engaged in rural agribusinesses is even more challenging. This landscape prevails even though banks and non-bank financial institutions in Accra have reported a keen preference for lending to women.

Citing experience, three separate institutions interviewed for this report stated that women had higher repayment rates and lower default rates than men. Yet the preference in Accra boardrooms does not translate into loans on the ground in rural Ghana. Particularly in northern Ghana, financial sector actors expressed that although banks have a high opinion of women as borrowers, very few women seek out financial services.

Two weeks of field study is insufficient to fully unpack a topic as complex as gender differences in agricultural finance. However, stakeholders pointed to two possible culprits for further review—although neither is exclusive or comprehensive. First, multiple stakeholders said that low literacy rates among women in Ghana was as key constraint One representative noted firsthand experience, having to turn away a woman who was unable to properly complete forms and provide the necessary information to meet strict "know your customer" requirements. According to UNICEF, there is a 16.7% literacy gap between women and men in Ghana. Stakeholders in Tamale anecdotally observed that in northern Ghana, the literacy gap is probably much wider. Although low literacy does not preclude access to all financial institutions, notably susu dealers and money lenders, those entities often charge exorbitant rates for their services.

Second, the bankers we interviewed noted that women in particular face the circular constraint noted above with respect to credit history. In practice, to obtain a loan you must have a credit history that demonstrates a history of repayments, but to obtain a loan you must have *had* a loan.

Even when families have the financial capability and the business case to get a loan, the loan is typically out in the name of the husband as the head of the family. One stakeholder observed that in northern Ghana, banks and non-bank financial institutions would simply not consider letting a wife with a husband to take out a loan on behalf of the family.

On the other hand, women have significant representation within e-money programs. In one value chain we reviewed, nearly 30% of registered e-money users were women. If and when financial institutions begin to accept historical vendor payments using verified e-money payment platform data, the circular problem cited could have a simple solution for improving women's access to credit.

PAYING TAXES

Key Laws and Regulations

- Income Tax Act, 2015 (Act 896)
- Income Tax (Amendment) Act, 2015 (Act 902)
- Income Tax (Amendment) Act, 2016 (Act 907)
- Income Tax (Amendment) (No 2) Act, 2016 (Act 924)
- Income Tax Regulations, 2016 (L.I. 2244)
- The Taxpayers Identification Numbering System Act, 2002 (Act 632)
- Value-Added Tax Act, 2013 (Act 870) and 2016 regulations (L.I. 2243)
- Customs (Amendment) Act, 2015 (Act 950)
- Local Governance Bill, 2016 (Act 936)
- Transfer Pricing Regulations, 2012 (L.I. 2188)
- Excise Duty Regulations, 2016 (L.I. 2242)
- The Free Zone Act, 1995 (Act 504)
- Ghana Revenue Authority Act, 2009 (Act 791)
- Ghana Investment Promotion Centre (GIPC) Act, 2013 (Act 865)

Few farmers in developing countries pay income taxes, but taxation still impacts national agricultural economies in many ways. The structure of a country's tax system, including who contributes to and who receives the benefits of consolidated national revenue, represents the fundamental and ever-evolving social contract between the state and its people. Sectors that represent the most economically disadvantaged, or that are strategically important for the greater good, are often favored. Therefore, in most countries, the balance of the agricultural sector's contribution to, and receipt of benefits from, taxation weighs heavily towards support for the rural economy. The rural economy is often economically depressed; agriculture is a strategic source of food security for the nation; and the revenue to be gained in impoverished, low density areas is not worth the costs of administration.

Ghana favors the agricultural sector through reduced tax rates and subsidies. In our interviews, both government officials and private companies openly dismissed the idea of taxation on agriculture. This unified reaction is no doubt in part because 80–85 percent of Ghana's agricultural sector is made up of small farmers. But all this is revealing: taken together, these policies and statements reflect a government that views agriculture as a sector of poverty, rather than a source of potential growth.

At the same time, the GOG has recorded revenue shortfalls in recent years, compounded by drops in world prices for Ghana's main export commodities such as gold, cocoa, and petroleum. Lacking sufficient revenue, the GOG regularly fails to meet projected budget disbursements for agencies, leaving them ill-equipped to carry out their mandates and functions. In practice, many of Ghana's major agricultural initiatives have been funded through donor support, either in kind or in the form of budgetary supplements. One USAID project estimated that 50 percent of the MOFA budget for 2017 will come from donor funding, which does even count all of the additional in-kind support given by donors through ongoing development projects in the agricultural sector.

The new GOG administration has made a commitment to increase government support for the agricultural sector. Planting for Food and Jobs, the new administration's signature agricultural initiative, calls for a massive increase in public funds to pay for a subsidy for seed and fertilizer for farmers. At the same time, the GOG is taking steps to balance the budget through a combination of fiscal cuts and tax reforms aimed at closing loopholes and reigning in fraudulent activities. Some of these changes will affect agribusinesses, and particularly small businesses, which are common in the agricultural sector. Despite the understandable desire to expand the tax base and curb abuses, the introduction of new taxes and administrative burdens may make it virtually impossible for these businesses to operate at a profit. Overall, it is unclear whether the GOG has a genuine forward-looking plan for the agricultural sector as a commercial segment of the economy.

LEGAL FRAMEWORK

Ghana has made significant strides in modernizing its tax system in the past 5–10 years. In 2015 and 2016, Ghana introduced a major overhaul of tax legislation. The **Income Tax Act, 2015 (Act 896)**, as amended by the **Income Tax (Amendment) Act, 2016 (Act 902)**, the **Income Tax (Amendment) Act, 2016 (Act 907)**, and the **Income Tax (Amendment) (No 2) Act, 2016 (Act 924)** (collectively, the Tax Reform Act), replaced the Ghanaian Internal Revenue Act, 2000 (Act 592). Accompanying **regulations** were adopted in July 2016, which clarify various provisions of the Tax Reform Act. The GOG has also recently introduced specific regulations related to transfer pricing, excise duties, and the value-added tax (VAT).

A major initiative to introduce universal taxpayer identification numbers (TINs) began in the early 2000s with the passage of the **Taxpayers Identification Numbering System Act, 2002 (Act 632)**. Despite some initial hiccups in implementation, the Ghana Revenue Authority (GRA) is now in the process of registering taxpayers alongside the rollout of electronic records for business registration, customs paperwork, and tax filings. To encourage registration, the GRA conducts outreach seminars for citizens around the country. All new businesses now receive a TIN on formation as part of the procedures of the Registrar General.

Ghana ranks 122 out of 190 economies in the area of taxation under the World Bank's Doing Business Index 2017. Ghana's total tax rate of 32.7%, as measured by Doing Business, ranks as the second lowest in the West Africa region and well below the Sub-Saharan Africa average of 46.96%. Ghana also scores below the regional averages for Sub-Saharan Africa and West Africa in the total time in hours required annually to comply with tax obligations. According to data supplied by the GRA, tax as a percentage of non-oil GDP has averaged 12–16% in 2007–2016.

Individual and Corporate Income Taxes

Individuals (both employees and sole proprietors) pay income taxes according to graduated rates on the basis of chargeable income—that is, gross income net of the deductions and capital allowances permitted under the Act. There are five tax brackets: those earning up to Gh¢2,592 per year pay zero tax; the other brackets range from 5%–25% (see Figure 3). According to the Ghana Living Standards Survey Round 6 published by the Ghana Statistical Service in 2014, the mean annual rural per capita income is Gh¢3,302.83.[92] Thus most farmers in Ghana likely fall within the 5% bracket or possibly below the level of taxation altogether. Notably, the income of cocoa farmers is specifically exempt from taxation under the Tax Reform Act.[93]

For employees, taxes are withheld by the employer and remitted to the GRA on the employee's behalf. Employees are not required to file a return unless seeking personal tax breaks, such as those based on age, disability, education costs, and number of dependents, as specified in the Fifth Schedule of the Tax Reform Act.

Corporations are taxed at 25% on their chargeable income, which is calculated and paid according to different filing and payment regimes based on the size of the business. Certain types of businesses, including nearly all companies within the agricultural sector, receive reduced corporate tax rates based on their activities and location (see section on Tax Incentives below).

Certain sole proprietors, as defined in the Second Schedule of the Tax Reform Act, are subject to a presumptive 3% tax on turnover, or gross sales, in lieu of the graduated rates described above. The presumptive tax poses a much lighter administrative burden on small businesses but does not allow for

[92] Ghana Statistical Service, Ghana Living Standards Survey Round 6 (GLSS 6): Main Report, p. 150 (2014).

[93] See Act, Section 7(1)(g).

deductions. The presumptive tax applies mostly to businesses that have annual turnover of up to Gh¢200,000 and that are not required to register for the VAT.[94]

Figure 3: Individual Income Tax Rates in Ghana

Chargeable Income (GHS)	Tax Rate (%)	Tax (GHS)	Cumulative Chargeable Income (GHS)	Cumulative Tax (GHS)
First 2,592	0%	-	2,592	-
Next 1,296	5%	64.80	3,888	64.80
Next 1,812	10%	181.20	5,700	246.00
Next 33,180	17.5%	5,806.50	38,880	6,052.50
Exceeding 38,880	25%			

Source: GRA website

Any individual engaged in a commercial endeavor should be registered as a sole proprietor with the Registrar General. In practice, many of these businesses operate in the informal sector outside the tax net. To partially counteract this, the GOG employs a tax stamp system, which imposes a nominal fee on small merchants. This fee, which should be paid quarterly, buys the taxpayer a certificate of payment that can be displayed in his/her shop or on demand from a tax agent. The rates are based on the size of the business, as determined by the tax agent after discussion with the taxpayer and/or physical inspection of the place of business, and typically range from Gh¢25–40 per quarter. In practice, the tax stamp is collected very unevenly, depending on the level of contact with the GRA or visibility of the business. This lack of uniformity in application and the cost of implementation has led the Commissioner General to announce a review of these taxes to determine whether the revenue and compliance benefits derived from its application justify the cost of its administration.

Value-Added Taxes

Pursuant to the **Value-Added Tax Act of 2013 (Act 870)**, a value-added tax (VAT) of 15% applies to the supply and import of all goods and services in Ghana, unless otherwise exempt. An additional 2.5% National Health Insurance Levy (NHIL) applies to all VAT transactions, bringing the effective tax rate on goods and services to 17.5%. All businesses for whom the value of the taxable supply of goods and services made within a 12-month period exceeds Gh¢120,000, or for whom the taxable supply exceeds Gh¢30,000 in a three-month period must register and pay the VAT.

A value-added tax is collected along each stage in the production chain. A seller charges VAT on taxable sales and remits the tax payment to the GRA. However, sellers may deduct the amount of any VAT paid on inputs—that is, VAT paid to purchase the goods and services that went into the production of the good or service sold. The ultimate cost of a VAT is borne by the final consumer, but the system can be administratively cumbersome for the businesses that participate.

To lower the burden on small businesses, the GOG introduced a VAT Flat Rate Scheme (VFRS) under which retailers and wholesalers of taxable goods (but not services) pay a flat rate of 3% of value of the taxable supply but are not allowed to seek an input tax deduction in relation to any VAT paid on purchases. The VFRS went into effect on April 7, 2017 with the enactment of the Value Added Tax (Amendment) Act, 2017 (Act 948).[95]

A variety of products are exempt from VAT by law. Schedule 1 of Act 870 lists the products that fall outside the scope of the VAT tax base. This list includes most agricultural products in a raw or minimally processed state, live animals, agricultural inputs and machinery, and agricultural land. All exports are zero-rated for VAT purposes. Some importers complained that VAT is not evenly collected on imported goods,

[94] See Act, Second Schedule, as amended (2015).
[95] A previous VFRS was abolished in 2014.

which allows those who have not paid to undercut their competitors' prices on commodities such as rice, wheat, and tomatoes.

The taxable supply of a free zone enterprise is zero-rated. To receive relief from any VAT paid on purchases, free zone enterprises must either seek a refund from the GRA or apply for a VAT Relief Purchase Order (from MOF), which is provided to a seller to relieve him or her from collecting VAT on sales to the free zone enterprise. VAT Relief Purchase Orders must be bought from the GRA in specific denominations, which requires the enterprise to have fairly accurate projections of upcoming expenses, but this approach is often preferable to the unpredictability of the refund process. Although the VAT refund process has reportedly improved in recent years, in the past companies have claimed that VAT refunds were all but impossible to obtain.

In the most recent budget statement, the new administration slashed a variety of so-called "nuisance taxes" with the goal of spurring private-sector investment.[96] The affected taxes include VAT on financial services, imported medicines, domestic airline tickets, and real estate sales.

Import Duties and Excise Taxes

As described in the chapter on Trading Across Borders, duties apply to various imported goods according to rates set forth in the schedules under the **Customs (Amendment) Act, 2015 (Act 950)**. Customs charges the import duty at the border, which must be paid prior to clearing the goods. Importers can apply for a duty drawback (refund) for imported goods that are later exported.[97]

By law, most agricultural inputs are exempt from import duties if imported from other ECOWAS countries. Seeds and some fertilizers that originate outside ECOWAS are subject to a 5% duty. Goods may also be exempted at the discretion of the Minister of Finance or by qualifying for special tax incentives, as described in the section on Tax Incentives below.

In an attempt to improve cash flow and root out fraud in the implementation of discretionary exemptions, the new administration has begun requiring all taxpayers, regardless of exemption status, to pay taxes up front and seek a refund. This rule applies not only to import duty exemptions but also to the VAT. As a result, some importers now face a 22.5% tax (17.5% VAT/NHIL and 5% import duty) on each shipment, which must be paid before the goods can be cleared and released at the port of entry.[98]

The GRA insists it will adhere strictly to deadlines for paying refunds under the revised policy. However, given the extremely high interest rates in Ghana, the cost of even a short-term, 30–45 day line of credit will be out of reach for many small and medium-sized businesses. A representative from the Ministry of Finance acknowledged that there may be "victims" of this policy but insisted it is necessary to close tax loopholes and help balance the budget. In the face of stiff opposition from the business community, the Ministry of Finance is now discussing the possibility of providing relief to certain businesses. It is unclear who will receive this relief and on what basis, so the policy started to curtail abuses in discretionary exemptions has the potential to be fraught with an equal amount of discretion.

Local Taxes

The **Local Governance Bill, 2016 (Act 936)** replaced a variety of bills related to decentralization and local government, with the goal of clarifying and decentralizing various political, fiscal, planning, and administrative functions. Under the Constitution of Ghana, local District Assemblies are entitled to 5% of the national revenue, which is allocated to each of Ghana's 216 districts according to a formula set by Parliament. In recent years, the Ministry of Finance voluntarily increased the revenue contribution

[96] See 2017 Budget Statement and Economic Policy, Section 796, for full list, available at http://www.mofep.gov.gh/?q=budget-statements.
[97] See chapter on Trading Across Borders for more information on import levies and exemptions.
[98] See 2017 Budget Statement and Economic Policy, p.137, for explanation Sections 798 and 1799.

percentage to 7.5%, but the amount will return to 5 % in 2017 as part of the new administration's efforts at increased fiscal discipline. Other taxes can be levied per the Local Governance Bill, 2016, but these sources raise only minimal revenue. Local governments collect revenue through various small taxes, licenses, fees, and other charges on local businesses, as well as rates charged on real property. Businesses do not perceive these taxes as a burden; in fact, several companies interviewed were not aware of any local taxes to which they are subject.

In practice, revenue from local taxes makes up only an estimated 10% of all local government funds. This structure leads to a heavy reliance on disbursements from the Ministry of Finance, which do not always arrive on time. The reduction of the voluntary increase of the statutory disbursement, which reflects an overall effort by the Ministry of Finance to reduce the cost of statutorily earmarked funds, will likely have a significant impact on the resources of local governments.

Tax Incentives

The Tax Reform Act sets forth wide-ranging tax holidays and reduced rates for different types of businesses. Under Section 134 of the Act, certain taxpayers are entitled to a "temporary concession," as listed in the Sixth Schedule of the Act. The agricultural sector is particularly favored in these concessions, with tree crop farming and cattle enterprises receiving a 10-year tax holiday and other livestock, cocoa by-product, and agro-processing businesses receiving 5 years tax-free.[99] All businesses are required to pay a minimum tax of 1% each year, regardless of their concessionary status.[100] According to the GRA, this nominal 1% tax helps sensitize businesses to the process of filing and payment, widens the tax base, and allows the GRA to monitor the activities of those businesses over time.

After the concessionary period, agricultural enterprises engaged in farming, agro-processing, and/or the production of cocoa by-products receive location incentives in the form of reduced tax rates (see Figure 4). These rates apply in lieu of the location incentives for other manufacturing businesses listed in Schedule 1 of the Income Tax Act, 2015 (Act 956). Companies engaged in the export of nontraditional goods, which includes most agricultural products other than cocoa, are subject to a reduced rate of 8%.

Businesses can also apply to be Free Zone Enterprises under the **Free Zone Act, 1995 (Act 504)**. To qualify, a business must engage in the production of goods or provision of services primarily for export. Free zone enterprises are entitled to a wide range of benefits, including a 10-year tax holiday and zero-rating of imported goods by Customs, as well as a reduced corporate tax rate of 15% after the tax holiday expires.[101]

Investors who qualify under the **Ghana Investment Promotion Centre Act, 2013 (Act 865)** may register with the Ghana Investment Promotion Centre (GIPC) to receive benefits in the form of import duty exemptions, work permits, and investment advice and facilitation. The largest investors or those investing in identified priority sectors are eligible for "strategic investment incentives." This classification entitles the investor to negotiate an individualized incentive deal with the GIPC and relevant government agencies. According to the GIPC, although agriculture and agro-processing are considered priority sectors, it is rare for an agricultural investment to qualify for strategic investment incentives, which are viewed as more capital intensive.

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[99] In contrast, petroleum and mining operations pay a 35% tax rate, which is above the standard corporate tax rate of 25%.

[100] See Tax Reform Act, First Schedule, Section 7 (Rate of tax on persons entitled to concessions under the Sixth Schedule).

[101] The reduced rate only applies if the company continues to export. Goods and services produced for the domestic market are subject to the regular 25% corporate tax.

Figure 4: Tax Rates on Agricultural Enterprises After Concessionary Period

Location	Income Tax Rate
Accra and Tema	20%
Other regional capitals outside the Northern Savannah Ecological Zone	15%
Outside other regional capitals	10%
Northern Savannah Ecological Zone	5%

Source: Income Tax Act, 2015 (Act 896) and Income Tax (Amendment) (No 2) Act, 2016 (Act 924)

Beyond the formal tax incentives described above, the GRA and MOF expressed concern regarding the proliferation of discretionary exemptions granted by the GOG to privileged persons and organizations, which are not subject to public disclosure or oversight. These discretionary arrangements now total more than a quarter of the value of all exemptions and nearly nine times the value of all exemptions granted under the GIPC. In addition to a thorough review of all existing exemptions and other forms of tax relief, as proposed in the 2017 budget statement, the GRA expressed the intention to push back against the granting of new exemptions going forward.

IMPLEMENTING INSTITUTIONS

The Ghana Revenue Authority Act, 2009 (Act 791) consolidated authority for the collecting revenue at the national level into a single entity, the **Ghana Revenue Authority (GRA)**. The GRA combines, under one roof, various services previously provided by the Internal Revenue Service, the Value Added Tax Service and the Customs, Excise and Preventive Service (CEPS), and Revenue Agencies Governing Board Secretariat. The GRA has three main divisions: the Domestic Tax Revenue Division and the Customs Division, both of which focus exclusively on revenue collection, and the Support Services Division, which provides administrative, finance, and research support for the Authority.

Key Implementing Institutions

- Ghana Revenue Authority (GRA)
- Ministry of Finance (MOF)

Tax and budget information is readily available online. The GRA's website is very clear, well-maintained, and consumer-friendly. It provides tax information summaries, access to key tax forms, and the contact information and locations of tax offices throughout the country.[102] There is also a link to the tax portal for online filing and tax payment services.[103] The Ministry of Finance website has links to information on the national budget, including a user-friendly "Citizen's Budget," which outlines priorities and expected expenditures by sector.[104]

Ghana Revenue Authority (GRA)

The GRA handles tax assessments, tax collection, and audits. To increase taxpayer compliance, the GRA periodically conducts training for taxpayers to sensitize them to their rights and responsibilities and changes in the tax law.

Assessment and payment. The GRA operates tax offices throughout the country, each of which specializes in a specific category or size of taxpayer. The Large Taxpayers Office (LTO), which caters to taxpayers whose turnover equals or exceeds Gh¢5 million per year, is located in Accra.[105] Medium-sized taxpayers, those whose turnover falls between Gh¢90,000 and Gh¢5 million per year, work with the 15 Medium Taxpayer Offices (MTOs), which are located in regional capitals. Both medium and large taxpayers

[102] See http://www.gra.gov.gh/.
[103] See https://egovonline.gegov.gov.gh/EghanaWeb/GRAHome/eghana.portal.
[104] See http://www.mofep.gov.gh/?q=content/2017-budget-statement-and-economic-policy.
[105] According to the GRA, there are fewer than 900 businesses that qualify as large taxpayers in Ghana.

conduct self-assessments and pay taxes on a quarterly basis with the assistance of a registered auditor. Returns must be filed annually by the end of the fourth month after the assessment period ends (usually the end of April).

Small companies and sole proprietors with turnover below Gh¢90,000 pay taxes annually based on a proposed assessment statement prepared by the GRA. The taxpayer goes to the local Small Taxpayer Office (STO) with his or her records of revenue and expenditures to negotiate the taxable amount owed. There are 51 STOs located throughout the country. STOs are also responsible administering the tax stamp for informal businesses.

For all taxpayers, payment can be made at the relevant tax office, at one of the banks that partners with the GRA for tax collection, or online. Implementation of the online payment system is underway, but few companies are using it so far (see Supporting Institutions below). Most prefer to pay in person rather than face the risk of a system glitch that would result in missing the deadline and suffering a late payment penalty.[106] Both Ecobank and Ghana Commercial Bank partner with the GRA in collecting revenue. Taxpayers bring a copy of the details of their return and the amount owed to a participating bank, where they can pay by cash or check or have the money transferred from an account they hold at the bank. These payments are transferred directly from the participating bank to the Bank of Ghana.

Audits. Each year, the GRA endeavors to conduct a desk audit of all returns and targets approximately 30% of returns for a larger field audit. Targeting is based on the risk profile of the business and its size, with large taxpayers much more likely to be audited. If the amount owed is in dispute, the taxpayer has 30 days to file an objection with the Commissioner-General of the GRA.[107] However, the taxpayer is required to pay 30% of the assessed amount up front while the appeal is pending.[108]

Taxpayers' views on these audits were mixed regarding whether or not the assessments were fair. Some claimed that the GRA agents would deliberately over-assess to drive up revenue and meet annual revenue targets, which are linked to a 15% salary bonus for GRA staff. Companies complained that the GRA often delays finalizing the audit to avoid paying the refund of the 30% upfront tax. For its part, the GRA argued that the 30 percent rule protects the GRA from frivolous appeals by taxpayers seeking to delay payment of tax duly owed.

By law, the GRA has 90 days to complete the internal administrative appeal. Companies and their accountants stated that in practice the administrative appeals can take six months to a year, if not longer.[109] Following an adverse outcome at the administrative level, taxpayers are entitled to dispute the audit findings in the High Court, followed by higher appeals to the Court of Appeals and Supreme Court if desired. Due to the expense of litigation, very few companies actually pursue court appeals.

The Domestic Tax Revenue Division stated that they are working on a manual to guide tax agent audits and looking to restructure the appeals process so that the administrative appeal starts at a higher level within the GRA hierarchy, in an office independent from the one that conducted the original audit.

Ministry of Finance (MOF)

The **Ministry of Finance (MOF)** manages the national budget, including overseeing budgetary projections, coordinating budgetary requests from government ministries and agencies, and preparing the annual budget for Parliamentary approval. In recent years, the forecasted revenue numbers in the

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[106] See Act, Seventh Schedule, Section 50 institutes interest at the rate of 125% of the statutory rate, compounded monthly, on any tax amount outstanding, and Section 56 sets forth additional fines and/or jail time based on the amount of underpayment.

[107] See Act, Seventh Schedule, Section 21.

[108] See Act, Seventh Schedule, Section 24.

[109] If no decision is forthcoming in the 90-day time period, the taxpayer can elect to have the appeal treated as disallowed and proceed immediately to pursue a second appeal in the High Court.

approved national budget have overestimated the actual revenue later received. The GOG has also encountered higher than expected expenditures, leading to increased borrowing to cover the deficit. Interest payments on GOG debt now account for nearly a quarter of all government expenditures.[110] Officials with the GRA and MOF blamed the inaccuracies on overly optimistic forecasts and recent shocks in commodity prices that have hit Ghana's oil, gold, and cocoa industries.

To address these issues and achieve a balanced budget, the new administration has begun closing tax loopholes and reducing government outlays. With respect to the latter, the government announced that it will impose a cap of 25% on earmarked statutory funds to create "fiscal space" for reallocating revenue for funding evolving government priorities. The cap will affect only those institutions or funds that receive a specified amount or percentage of national revenue according to an act of Parliament; constitutional allocations, such as those for local government, will not be subject to the cap.[111] To increase revenue, the Ministry announced a series of changes in the tax law and administration in the 2017 budget. These changes, plus the anticipated opening of two new oil fields within the next five years, are expected to yield a 30% increase in revenue.

Balancing the budget requires difficult choices, and there will be winners and losers from the changes made. The MOF needs to continue monitoring the impact of these changes through research and statistics, and also engaging in dialogue with the private sector to ensure that the application of the new rules is transparent and sufficiently targeted to achieve its goals without undue impact on one segment of the economy or type of taxpayer.

SUPPORTING INSTITUTIONS

Ghana Community Network Service Limited (GCNET)

Ghana Community Network Services Limited (GCNet), a public-private partnership, manages a host of e-government platforms for the GOG, including various Customs and GRA-related functions. Originally created to manage the Ghana Single Window, in 2010 GCNet was extended to the GRA through the development of trips,™ an online filing system, and the Ghana Electronic Payment Platform (GEPP), which handles online payments.

Key Supporting Institutions

- Ghana Community Network Service Limited (GCNet)
- Tax accountants and tax attorneys
- Ghana Investment Promotion Centre (GIPC)

GCNet is still in the process of rolling out the trips™ program, which is currently active in 22 of 68 GRA offices and 4 sites for the Registrar General. Training for GRA staff is in progress at offices throughout the country, and GCNet projected that the rollout would be completed by the end of the second quarter of 2017. A TIN is required to use the system. According to tax accountants, taxpayers still must submit paper copies of their returns even if they enter their data in the online system, and some taxpayers have had issues with the filing system losing their data. Thus, most taxpayers continue to feel more comfortable simply filing paper returns.

The GEPP was introduced during the last two years but has had technical difficulties that have limited uptake to date. In practice, most taxpayers still prefer to pay at the bank or tax office and receive a physical receipt. These challenges will need to be resolved before the GEPP system will be widely adopted.

Tax Accounting and Legal Advice

All registered companies must submit annual financial statements with their tax returns that have been audited by a chartered tax accountant. Accountants are regulated by the **Instituted of Chartered**

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[110] See 2017 Citizens' Budget, available at http://www.mofep.gov.gh/?q=budget-statements.
[111] See 2017 Budget Statement and Economic Policy, Sections 834–841, available at http://www.mofep.gov.gh/?q=budget-statements.

Accountants, which was established in 1963 by an Act of Parliament. Accountants spend much of the first quarter of each year on site at client offices preparing annual financial statements.

In 2016, Parliament passed the Charter Institute of Taxation Act, 2016 (Act 916), which establishes the **Charter Institute of Taxation Ghana (CITG)** as the premier institution for the regulation and promotion of the practice of taxation in Ghana.[112] The CITG will establish professional standards for tax practitioners and require members to pass a qualifying exam and meet practical training requirements.

Ghana Investment Promotion Centre (GIPC)

As described in the section on Tax Incentives above, tax incentives and investment promotion are handled primarily by the **Ghana Investment Promotion Centre (GIPC)**. After registration with the Registrar General, investors can register at the GIPC to receive the benefits defined in the GIPC Act. Applicants must demonstrate the existence of a bank account in Ghana with the sufficient minimum capital amount as required under the Act for the type of investor and investment. To promote transparency, the eligibility criteria for strategic investment incentives and the terms of any deals awarded must be published on the GIPC website and in the national gazette.[113] However, at present this final step does not occur.

SOCIAL DYNAMICS

Attitudes Toward Taxation

Some stakeholders expressed concerns regarding the level of voluntary compliance with tax laws, and there is obviously a need to widen the tax base to address Ghana's critical fiscal challenges. Only about a third of the population has a bank account, and a large percentage of individuals and businesses do not yet have a TIN. With no formal point of interaction with the state, a large number of small and even medium-sized businesses operate informally and may not be aware of their tax obligations.

On the whole, however, most people interviewed felt that compliance is not a significant issue. The most recent tax reform instituted significantly higher penalties for failure to pay, and the GRA is making a push to encourage registration and inform taxpayers of their rights and responsibilities, including occasionally offering tax amnesties to encourage formalization.

Corruption

Despite the complaints regarding the 30% rule for audits, taxpayers otherwise had very few complaints about the GRA. Very few private sector stakeholders even suggested that corruption is a problem in Ghana. While there are no doubt tax agents willing to accept payment in exchange for a lesser tax assessment, there is no evidence that this type of graft is as common in Ghana as it is in many other countries in Sub-Saharan Africa. Overall, taxpayers and accountants felt that the staff of the GRA are reasonable.

Government View of Agriculture

Despite the campaign promises and lofty proposed budget numbers, many of the stakeholders interviewed, both inside and outside of government, stated that the agricultural sector is not a priority for the GOG. In their view, successive governments pay lip service to agriculture as the backbone of the economy, but the actions taken after election consist of short-term handouts. Rarely does a new government present a strategy for developing the sector that aims at true commercial transformation. The new administration's plans for its signature "Planting for Food and Jobs" campaign is no different. Stakeholders cited programs back to the 1970s that pursued similar approaches, and offered a dim outlook for the success of the newest initiative.

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[112] See http://www.taxghana.org/index.php/about-us/history-of-citg.

[113] See GIPC Act, Section 26.

Weak Fiscal Environment

GOG revenue derives from a variety of sources, including domestic taxes collected by the GRA, internally generated funds of government institutions (for example, licenses, permits, and other fees), oil and gas revenue, and donor contributions. Internally generated funds (IGF) from agencies and ministry services are submitted, to varying degrees, to the national consolidated fund, out of which civil service salaries and public good and services are funded.[114]

All government officials agreed that civil service salaries are consistently paid in full. When there are shortfalls in disbursements, it is the goods and services budgets that suffer. Across all agriculture-related government institutions interviewed, stakeholders claimed to receive no more than a third of the promised goods and services budget each year and only one or two disbursements per year instead of the expected quarterly payments. As a result, these agencies inherently lack the resources to carry out their mandates.

In practice, budgetary shortfalls at the ministry level are often filled by donors through project resources. However, because this revenue source is tied to short-term donor projects, it is unpredictable and often targeted to specific donor goals. As a result, capital improvements, staff training, and even basic operating expenses may not be met.

Many agricultural departments and agencies have seen a sizable increase in their projected budget allocations this year to account for implementing the Planting for Food and Jobs campaign. If the GOG wants to reap the full benefits of this increased investment in agriculture, it will need to find a way as part of its fiscal reforms to ensure agencies will have the operating budgets necessary to support sector development into the future.

[114] For example, the Plant Protection and Regulatory Services Directorate (PPRSD) of MOFA retains only 20 percent of its IGF, whereas the national research institutes retain 100 percent.

ACCESSING MARKETS AND TRANSPORT

This chapter covers the hard and soft infrastructure central for moving goods from the farm level to domestic and international markets, with an emphasis on (a) flow of information on-farm and in the market, (b) storage conditions and availability, and (c) the transport network.

In Ghana, **three main divides** influence access to markets and transport, as well as livelihoods and socioeconomic status throughout the country: (1) urban/rural, (2) north/south, and (3) male/female.

Urban areas and southern areas have more advanced markets and transport conditions. In the agricultural sector especially, men have more access to information. Additionally, agriculture in Ghana overall faces its own dichotomy: commercial agribusinesses have precision production methods, modernized value chains, and sell to international markets; smallholder farmers produce crops with rudimentary methods for their own consumption and/or sale at local markets.

Key Implementing Institutions

- District Assemblies (DA)
- Market Management Committees
- Ministry of Local Government and Rural Development
- Food and Drugs Authority (FDA)
- Ghana Standards Authority
- Ghana Grains Council (GGC)
- Cocoa Board (COCOBOD)
- National Buffer Stock Company (NAFCO)
- Ministry of Transport
- Ministry of Roads and Highways
- Ministry of Railway Development
- Ministry of Aviation
- Driver and Vehicle Licensing Authority (DVLA)
- Ghana Ports and Harbours Authority (GPHA)
- Volta Lake Transport Company (VLTC)
- Ghana Civil Aviation Authority

Markets are a way of life in Ghana and run the whole gamut of size and formality, from weekly open markets to fast-paced modern malls and supermarkets, to informal roadside selling and all the way to advanced internationally connected supply chains. Ghanaian markets have limited barriers to entry, and information on price and availability flows mostly by word of mouth between importers and wholesalers, wholesalers and retailers, and aggregators and farmers. Prices are set at the time of transaction based on market trends and credit is extended in an ad hoc manner at the discretion of the seller. Although the market dictates farm gate, retail, and wholesale prices for agricultural goods, cocoa is the only commodity with set price controls.

Stakeholders report there is a market for quality agricultural goods produced in Ghana. This is especially true for export commodities, because there is unmet demand in the EU. As for goods produced and sold in the domestic market, producers and traders report demand but farmers receive low prices. These low prices can be attributed to a confluence of factors, including (a) competition from imported foods (for example, rice from Thailand, prepackaged veggies from South Africa); (b) lack of quality assurance and reliable and hygienic rural level storage, resulting in excessive postharvest losses; (c) low yields and limited quantities available for sale; (d) poor market information; (e) cost of transport; (f) inability to demand premiums for quality or reliability; and (e) limited purchasing power on the part of rural consumers.

Ghana scores poorly on the World Bank's EBA indicator for Transport. The EBA transport indicators focus on truck licensing and cross-border transportation, and Ghana has received numerous zeros because some of the criteria do not apply to the Ghanaian context. For example, a truck license is not legally required in Ghana; however, its required roadworthiness certificates are not captured in the EBA. The EBA transport indicators center on types of licenses for trucks. In Ghana, however, a varied range of transport modes move agricultural goods. Certainly, cargo trucks are essential for moving large quantities, especially to and from the port and across borders, but in Ghana most goods are moved using multimodal transport from the farm to aggregation centers to the market, and between wholesale and retail markets via motorcycle, taxi, tricycle, trotro,[115] and push cart. One woman noted that the transport options available to her allows her to move goods independently, and she doesn't have to rely on her children for carrying goods to and from the market anymore so they can stay in school.

Cargo transport is a competitive industry. Transport companies are primarily small and medium-sized enterprises (large transport firms are not the norm in the market), and stakeholders report the trucks are generally available.

Companies hire transporters based on a number of criteria such as rates, driver, lead time, financial capability, and insurance. Transporters set prices based on the type of good, quantity, distance, regularity of the client, and whether the transporter has additional space to fill in the truck. One trader quoted the following transport costs for grains: Gh¢5–6 per one 50-kg bag for GOG, WFP, or other donor shipments; Gh¢3 per one 50-kg bag for general market rate; and Gh¢1.50 per one 50-kg bag for ad hoc goods when trucks are returning from a drop-off or want to top off their cargo load. Agribusinesses negotiate more favorable transport costs when they are known as a major player in the market, while smaller traders have much less bargaining power.

LEGAL FRAMEWORK

The **Food and Agriculture Sector Development Policy (FASDEP II)** acknowledges the importance of developing effective postharvest management, including storage facilities. Broadly stated, this new policy will "*encourage partnership between private sector and District Assemblies to develop trade in local and regional markets with improved market infrastructure and sanitary conditions, and enforce standards of good agricultural practices.*" However, no specific policy governs warehousing and storage. And although FASDEP II highlights the rickety infrastructure and the unhygienic, over-crowded environments at markets, the policy makes no specific mention on how, when, or who will bring about improved conditions. In pointing out the issues, FASDEP II also notes that the District Assemblies and traders lack capacity to effectively manage produce and livestock markets.

Key Laws and Regulations

- Food and Agriculture Sector Development Policy (FASDEP II)
- Local Government, Department of District Assemblies, Instrument, 2009 (LI 1961)
- Weights and Measures Act, 1975 (NRCD 326)
- Public Health Act, 2012 (Act 851)
- Food and Drugs Law, 1992 (PNDCL 305B)
- Standards Act, 1973 (NRCD 173)
- Sector Medium-Term Development Plan (2014-2017) (SMTDP)
- Road Traffic Act, 2004 (Act 683)
- Road Traffic Regulations, 2012 (LI 2018)
- National Transport Policy (2008)

Markets

The **Local Government, Department of District Assemblies, Instrument, 2009 (LI 1961)** authorizes district assemblies to select jurisdictions for overseeing markets. As part of the mandates, waste management departments will supervise cleaning of markets; the department of works will maintain markets and prevent the erection of stalls in areas other than markets; the department of trade, industry, and tourism will assist in regulating and controlling markets, including fixing and collecting stall rents and tolls.

Weights, Measures, Grades, and Standards

Most transactions at open markets occur in cash (in Ghanaian cedi) and goods are sold through a verbal ask and negotiation of the price. Price boards, tags, or notification signs are rarely used, and scales for

[115] A trotro is a privately owned minibus that transports passengers.

measuring the weight of the goods are also not common practice. Goods are sold by volume or by sack, rather than by kilo. The **Weights and Measures Act, 1975 (NRCD 326)**, which regulates this matter, is generally not enforced for agricultural products in the domestic market (except for cocoa).

MOTI reports that MOFA has had initiatives to distribute scales at markets but faced limited uptake, because appropriate measurement must start at the farm level and transport level, not just at the point of consumer sales. No new serious interventions have emerged in recent years to tackle this problem.

Quality standards and their and promotion vary immensely depending on whether the end-market is domestic or international. The domestic market is not quality sensitive, as maize and other goods sell based on the consumer's visual acceptance. A grading system in the market for locally produced maize is not used, and farmers fail to take the time to sort and pull out dirt and stones.

On the other hand, goods destined for the export markets follow the utmost stringency in terms of standards and specifications. Select exporters targeting EU consumers are GlobalGAP certified, and some also have the FairTrade and organic certifications.

Phytosanitary certificates issued by the PPRSD are for export goods. There is no formal certificate for goods produced and consumed in Ghana, and testing of any kind is mostly nonexistent. Mobile grain testing tools, such as the Blue Box, allow for on-the-spot testing of samples at any point in the value chain and would be beneficial to all if more regularly adopted. The sorghum value chain in Ghana is more advanced: the breweries set standards and provide aflatoxin testing kits directly to smallholder farmers. In fact, breweries are given a tax incentive to source local ingredients, so it is in their economic interest to figure out innovate ways to source local, quality grain.[116]

MOFA and MOTI, with donor support, launched a Green Label Scheme for fruit and vegetable production in Ghana as a local version of the GlobalGAP logo. However, since it was launched in 2015, the only actions that have materialized are the design of a manual and holding a few workshops. The overarching view is that public sector-driven initiatives often struggle to reach the right audiences.

Food Security

In the **Public Health Act, 2012 (Act 851)**, Part 7 covers the protection of public health and safety through the regulation of the food service industry, meat production, genetically modified organisms, and feed. The **Food and Drugs Law, 1992 (PNDCL 305B)** provides standards for the sale of food and drugs and through the **Standards Act, 1973 (NRCD 173)**, the Ghana Standards Authority (GSA) has the authority to check foods for quality parameters, pesticide residues, heavy metals, and contaminants. The Food and Agriculture Department of GSA has five laboratories: food, drinks, mycotoxins, metallic contaminants, and pesticide residue. However, national maximum residue levels have not been established for many of the pesticides required to produce a diverse variety of tropical fruits and vegetables.[117] Additionally, a research study in 2012 found residues of some banned pesticides on fruits and vegetables in Ghana.[118] Regular implementation and oversight of these guiding policies are lacking in the domestic market.

Transport Infrastructure

The Ministry of Transport **Sector Medium Term Development Plan (2014–17) (SMTDP)** sets the agenda for the Ministry's priorities. Much has changed since the SMTDP was issued; aviation and railways

[116] Communication with GGC, April 2017.
[117] Pwamang, Pesticide Registration in Ghana, 2016.
[118] Journal of Microbiology, Biotechnology, and Food Sciences, Market Basket Survey for Some Pesticides Residues in Fruits and Vegetables from Ghana, 2012.

are now separate ministries and therefore a new plan is currently being developed for each ministry to cover 2018–21.

The current SMTDP covers numerous topics of relevance to all modes of transport in Ghana, such as overloading trucks and subsequent deterioration of the roads. Raising awareness about and enforcing axle load controls continues to be a priority. The transport sector has been implementing the axle load control and management program in accordance with the **Road Traffic Act, 2004 (Act 683)** and the **Road Traffic Regulations, 2012 (L.I. 2180)**, which incorporate sections of the ECOWAS Supplementary Act.[119] The axle load policy is a priority for ECOWAS and for Ghana because overloading trucks damages roadways and can be dangerous to the driver and others on the road. When trucks are weighed and found to above the limit, the excess weight must be removed and a fine must be paid. Ghana has been more stringent than other countries in the region in ensuring compliance with the axle load policy. However, stakeholders at the port of Tema complain that this strictness has contributed to a loss of volume, because businesses simply shift to Abidjan or Lomé for transit north.

In 2008, Ghana released its first **National Transport Policy (2008)** to emphasize the critical role of transport infrastructure to economic growth. The National Transport Policy set out seven main goals:

1. Establish Ghana as a transportation hub for the West Africa sub-region.
2. Create a sustainable, accessible, affordable, reliable, effective, and efficient transport system that meets user needs.
3. Integrate land use, transport planning, development planning, and providing of services.
4. Create a vibrant investment and performance-based management environment that maximizes benefits for public and private sector investors.
5. Develop and implement comprehensive and integrated policy, governance, and institutional frameworks.
6. Ensure sustainable development in the transport sector.
7. Develop adequate human resources and apply new technology.[120]

Driver licenses. The DVLA issues driving licenses, and in 2008 changed the requirements so that the exam now tests literacy and computer familiarity. Transport associations report that the electronic version of the exam has restricted access, and even individuals who are good drivers and have spent their childhood assisting in trucks and trotros are unable to pass the exam. For its part, the DVLA intended that these changes would encourage new drivers to attend training schools and has argued that illiterate drivers can still obtain license renewals, because they are asked to interpret road signs during their test. Drivers licenses are valid for six years, but require a renewal every two years, which entails a fee and an eye examination. Fake licenses pose a minor problem and are now easier to detect since the DVLA issues licenses with hidden security markings.

Roadworthiness certificates. A truck license is not legally required in Ghana. However, private and commercial vehicles need roadworthiness certificates.[121] Private vehicles require a new roadworthiness certificate each year and commercial vehicles require a new certificate every six months; these can be obtained once DVLA collects a fee and conducts an examination.

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[119] Ministry of Transport, SMTDP, 2014-2017.
[120] Ministry of Transport, National Transport Policy, 2008.
[121] Note that the EBA Transport indicator scores the legal framework based on the type of truck licenses required. In Ghana, although a license is not required, trucks are regulated through the use of roadworthiness certificates. Thus, Ghana's poor score on the transport indicator should not be overly emphasized.

Vehicle registration. There is no limit to the number of vehicle registrations issues per year in Ghana. In 2016, more than two million vehicles were registered, including private and commercial vehicles, motorcycles, buses, trucks, and agricultural equipment (see Figure 5). The DVLA maintains a registry, but it is not available online. However, DVLA's website does provide the requirements for registrations and licenses; all actual paperwork has to be submitted in person at a DVLA office.

Figure 5: Number of Vehicles and Rigid Cargo Trucks Registered in Ghana

Year	Cumulative Vehicles (All Categories)	Rigid Cargo Trucks (Up to 16 MT)	Rigid Cargo Trucks (16–22 MT)	Rigid Cargo Trucks (Above 22 MT)
2015	1,952,564	2,745	686	1,096
2016	2,066,943	3,820	1,143	1,630

Source: DVLA, Total Number of Vehicles Registered in Ghana by Category, Obtained March 2017.

IMPLEMENTING INSTITUTIONS

MARKETS

Market Authorities

Markets fall under the jurisdiction of the **District Assemblies (DA),** and the DAs provide supervision and guidance to the **Market Management Committees** and Market Managers at each market. The Market Management Committees oversee the maintenance and finances, and address any complaints or management issues. The Market Management Committees are responsible for ensuring the markets are meeting expectations of the DAs, traders, and customers.[122]

Ghana's open-air markets are not segmented by product, and there is no uniformity across Ghana's markets on cost structure or fees for setting up stalls. In select markets, vendors pay a monthly fee, while in other markets traders pay a one-time upfront fee largely at the discretion of the market authorities and the DA. The DA has the legal right to set tariffs, including those for rents and fees in the local markets. The **Ministry of Local Government and Rural Development** has expressed the intention to develop guidance that standardizes fee ceilings across districts, but has yet to do so.

Food Safety Authorities

Part 7 of the Public Health Act mandates the **Food and Drugs Authority (FDA)** to protect the public by regulating food, drugs, household chemical substances, cosmetics, and medical devices. The FDA's Food Safety Division regulates the food service industry, meat production, genetically modified organisms, and feed. The Food Safety Division is composed of the Animal Product and Biosafety Department, the Food Safety Management Department, and the Food Industrial Support Services Department.[123]

The **Ghana Standards Authority** has authorized only one laboratory to test for pesticide residues. That one lab also services importers of agrochemicals and exporters of products (when the buyer requires a certificate). Currently, five Ghanaian food products are banned from the EU market because of high residue levels. In general, domestic buyers and sellers do not send samples to this lab for pesticide residue testing.

When warehouses are built for cereal storage, the **Ghana Grains Council (GGC)** frequently provides expertise on the proper preservation of quality and quantity of grains. GGC also trains warehouse staff in aflatoxin testing, grain handling, and warehouse management.

[122] Ministry of Local Government and Rural Development, Market Manual for Operation and Maintenance (n.d.).
[123] FDA, Food Safety Division, http://www.fdaghana.gov.gh/index.php?option=com_content&view=article&id=1&Itemid=11.

Ghana Commodity Exchange

At present, Ghana does not have an operational commodity exchange although one is planned. The exchange is not operating for varying reasons, but the overall viewpoint is that no demand or interest exists from the private sector. Too many commodities are imported and there is insufficient supply of domestically produced maize in the volume necessary for a regularly functioning commodity exchange or a warehouse receipt system. Moreover, those systems require precision and standardization, which is counter to the norm in Ghana, where transactions are done by volume or sack rather than actual weight. Installing a commodity exchange or warehouse receipts system would therefore entail a complete overhaul of the way Ghanaians do business.

COCOBOD

The market for cocoa is unique from other goods, in that it is largely controlled by the **Cocoa Board (COCOBOD)**, a GOG parastatal. COCOBOD sets standards for cocoa (such as bean size, and moisture content) while the free market sets standards for all other domestically produced goods. The cocoa trade is also treated separately from the rest of Ghana's agriculture sector in the following ways:

- COCOBOD sets prices, actively regulates the market, and manages logistics, which includes dictating transport prices for moving cocoa from the farms to their facilities.
- The Department of Feeder Roads in the Ministry of Roads and Highways is working with COCOBOD to tar key feeder roads in-cocoa producing areas.[124]
- COCOBOD has its own lab for quality assurance testing that is specifically designed for cocoa.

STORAGE

NAFCO

The **National Buffer Stock Company (NAFCO)**, an agency of the MOFA, stabilizes food supply and prices by absorbing surplus harvest and releasing those quantities into the market at strategic times or preserving them as strategic government reserves. NAFCO was created to purchase maize, rice, and soybeans through licensed buying companies (LBCs). LBCs act as wholesalers, using their own funds to purchase grains and ensure quality prior to selling them to NAFCO. A NAFCO committee sets the price at which they will buy these commodities each year.

NAFCO is under-resourced. In 2015 and 2016, NAFCO did not make any purchases in the northern region because of limited budget funds. Since 2008, the GOG has allocated Gh¢15 million to NAFCO, but this amount has been insufficient to maintain all of its proposed activities. NAFCO is optimistic funding will increase under the new administration because of its pro-agriculture campaign stance.

The NAFCO page on the MOFA website is outdated. The most recent data listed is for 2012.

TRANSPORT

The new administration has deemed transportation infrastructure a priority, and to show this commitment, the GOG underwent several restructurings at the ministry level in January 2017. Now, four ministries focus on transport infrastructure: **Ministry of Transport, Ministry of Roads and Highways, Ministry of Railway Development,** and **Ministry of Aviation**. The Ministry of Transport will continue to oversee maritime and road transport services.

[124] Communication with Ministry of Roads and Highways, April 2017.

Road Transport Authorities

Road conditions. In Ghana, transport by road accounts for more than 95 percent of all transport supply, with freight and passenger services provided primarily by the private sector.[125] Road transportation is vital to the national economy and is divided into four categories: urban, express services, rural-urban, and rural. Traffic is dense in Accra and at peak hours in Kumasi; otherwise the country as a whole has low traffic density.[126]

Figure 6: Road Transport Infrastructure, km

Year	Trunk Roads	Feeder Roads	Urban Roads
2006	12,786	40,671	9,764
2011	13,367	42,100	12,600

Source: Ghana Logistics Capacity Assessment, 2016.

Agribusinesses and transport associations report satisfaction with the quality of urban roads and the roads in the southern region that link to key export areas, such as the Port of Tema and Kotoka international airport. Rural roads, however, are in poor condition and lack regular maintenance. Only 23 percent of roads in Ghana are paved.[127] A large majority of the non-paved roads are critical for transporting food from farm to aggregation points. During the rainy season, potholes and poor roads present a real problem for the crucial feeder roads.

The **Ministry of Roads and Highways** is currently working on reclassifying the entire road network in Ghana. Once completed, some of the feeder roads and the urban roads will be ceded to the district assemblies, with the goal that eventually all roads will be managed by district-level road units.

The **Driver and Vehicle Licensing Authority (DVLA)** under the Ministry of Transport, was formed under Act 569 in 1999.[128] Under this Act, the DVLA implements a regulatory framework for administering driver's licenses, license plates, vehicle registration, driving schools, vehicle certifications, and other responsibilities key to an effective administration of drivers and vehicles in Ghana.

One glaring constraint in domestic transport is the lack of standardized street addresses, especially in the growing urban areas. In 2011, the Ministry of Local Government and Rural Development released an official policy—the National Street Naming and Property Addressing Policy—to provide a framework and guidance for better identifying street names and property numbers. The district assemblies are supposed to be responsible for implementing this framework but in actuality, it has not received the necessary scrutiny or funding. The existing chaos and confusion means that individuals approach the assemblies and offer money in exchange for a street to bear their name or their grandparent's name (which can be a combination of complicated first, middle, and last names), and sometimes the assemblies auction streets to the highest bidder. The new administration has deemed this lack of uniformity a priority, and the vice-president now chairs this initiative. Improving street naming and addresses should also contribute to overall better road signage for drivers.

Checkpoints. In Ghana, police, customs, or immigration can administer checkpoints and require documentation unique to their own jurisdiction (see Figure 8). Checkpoints, whether fixed or mobile, are intended to monitor compliance and ensure road safety.

[125] Ministry of Transport, SMTDP, 2014-2017.
[126] WFP, Ghana Logistics Capacity Assessment, 2016.
[127] Ministry of Roads and Highways, April 2017.
[128] DVLA, http://www.dvla.gov.gh/site/intro.

Figure 7: Checkpoint Documentation

Police	Customs	Immigration
Driving license ECOWAS brown card Vehicle insurance Road worthiness certificate National ID card	Inter-State Waybill Customs Declaration Inter-State Road Transit Logbook (ECOWAS ISRT logbook) Letter of Guarantee	ECOWAS brown card International driving license Passport

Source: Drivers Guide to Ghana, 2010; and DVLA interview, 2017.

Checkpoints have received much policy and civil society attention because transporters report an excessive quantity. Given the significant time delay in presenting documents, checkpoints hinder the free movement of goods and people and increase costs to ship goods. Drivers also report harassment at checkpoints. Although ECOWAS guidance sets a limit of seven checkpoint stops between Afloa in the south (along the border with Togo) and Paga in the north (along the border with Burkina Faso), in actuality there are commonly up to 30 or 40 stops.[129]

Frequently unauthorized fees are exchanged at checkpoints, regardless of whether the documentation is fully compliant. Transport associations report that that individuals handling the checkpoint generally will not ask for an exact sum, but expect the drivers to pass over cash. This is extortion, it is getting out of hand, and drivers and companies have no choice but to pass the additional costs along to the consumer.

GPS tracking. Customs installs a GPS unit on each truck as it leaves the port so they can track goods. Some private companies also use GPS tracking devices to monitor drivers and keep track of locations and travel distances.

Ports and Water Transport Authorities

Ports. The **Ghana Ports and Harbours Authority (GPHA)** operates and maintains all the ports in Ghana. The Port of Tema is the largest in Ghana and about 85 percent of trade occurs at this port. The Port of Tema can handle container vessels, general cargo vessels, tankers, Ro-Ro,[130] and cruise vessels. On average the port receives 1,650 vessel calls annually. The port has 12 berths in addition to a dedicated oil berth and another operated by Volta Aluminum Company. Two of the berths are for container ships and the others are multipurpose. Currently, its two deep-water berths can sometimes cause congestion, but expansion plans include four new deep-water berths. At times, the port will lighten vessels and sift them to shallower draft berths for offloading. Meridian Port Services, a private company, manages container handling facilities and Golden Jubilee Terminal, operated by GPHA, oversees the inland clearance depot.[131]

The Fruit Terminal Company Ltd. is a joint venture company that provides cold storage at the port. For example, the pineapple exporters load their containers chilled at the packing house. Refrigerated trucks are not the norm, and the containers are connected to cold storage upon arrival at the port facility. There have been complaints that the x-ray scanner machines at the port delay movement, which worries perishables exporters as every minute outside cold storage enhances risk.

As stated in the National Transport Policy, investments in infrastructure and cranes at the Port of Tema have increased efficiency as the port becomes more of a regional transshipment hub. The current project underway is a US$1.5 billion IFC-funded investment for four deep-water berths (as noted above), a new

[129] Communication with transport association, April 2017.
[130] Ro-ro is short for Roll-on/Roll-off vessels that are designed to carry wheeled cargo such as cars and trucks. The cargo "rolls on" at the beginning of the trip and "rolls off" at the destination.
[131] WFP, Ghana Logistics Capacity Assessment, 2016.

breakwater, and a new access channel with a deep draft to accommodate the world's largest container ships. The project is expected to be completed late 2019.[132]

Lake Volta water transport. Lake Volta is one of the largest man-made lakes in the world and provides low cost, critical transport for goods and passengers in neighboring communities. The lake spans about 450 km from south to north, with ports at Akosombo, Buipe, and Yapei, and ferry crossings at other locations.[133]

The **Volta Lake Transport Company (VLTC)** plies the lake, carrying about 88,000 MT of cargo annually. Most northbound cargo consists diesel oil, alumina, cement, and fertilizer. Southbound cargo is mainly cassava, cotton, and shea nuts.[134] The National Transport Policy recognizes that while water transport may not constitute a major component of Ghana's transport system, it is important to improve the aging equipment, underwater obstructions, absence of navigational aids, and lack of regulation for canoe construction, use, and operation for the populations that rely on this transport mode.

Railways

The new **Ministry of Railways Development** seeks to bring awareness and funding to the rail system, since the existing heavy reliance on road transport puts pressure on the road network. Ghana has about 950 km of rail network, of which 14 percent is operational and the rest needing significant reconstruction. There are three main lines: central, eastern, and western, and they form a triangular network linking Kumasi to Takoradi and to Accra/Tema. Mining companies use an operating railway on the western line to transport manganese, while passengers use an operating railway on the eastern line for travel between Accra-Nsawam and Accra-Tema.[135] The rail system will require substantial public and private investment before it will be fully operational and reliable for the agricultural sector.

Airport Authorities

Ghana has an open skies policy, which allows the **Ghana Civil Aviation Authority** to operate with minimal restrictions from aviation authorities. Ghana also has received Category One status by the US Federal Aviation Administration audit, as part of the International Aviation Safety Audit, which enables direct non-stop flights between the US and Accra. Ghana is one of six countries[136] in Sub-Sahara Africa with this important status.[137]

Kotoka International Airport (KIA) handles the highest volume of cargo in the sub-region. The AGPC Centre Ltd. is a joint venture free zone company at the airport that manages the KIA Perishable Cargo Centre for perishable goods. The KIA Perishable Cargo Centre has been operational since 2012 and was constructed with funding from the MCC to facilitate the exports of perishables. As of March 2017, about 250–350 MT of perishables (primarily pineapple) are exported each week. As of April 2017, cargo is exported on the following carriers: Cargolux (once per week), Turkish Airlines (twice per week), Brussels (four times per week), Qatar Airways (twice per week), and DHL (twice per week). AGPC guarantees facilitation between exporter and airline and keeps goods in cold storage. The cargo must arrive 18 hours in advance because it is checked and x-rayed by customs, narcotics control, aviation security, and phytosanitary control, all of which take time and are required for a security declaration; this document acts as evidence to the airline that the goods are safe and legal.

At present, domestic air flights are used for moving passengers, not cargo or agricultural goods.

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[132] Ghana Ports and Harbours Authority, http://ghanaports.gov.gh/news/1165/$1.5Billion-Tema-Port-Expansion-Project-Commences.
[133] Ministry of Transport, National Transport Policy, 2008.
[134] WFP, Ghana Logistics Capacity Assessment, 2016.
[135] Ministry of Transport, SMTDP, 2014-2017.
[136] Egypt, Morocco, Nigeria, Kenya, and South Africa also have FAA Category One status.
[137] WFP, Ghana Logistics Capacity Assessment, 2016.

SUPPORTING INSTITUTIONS

Market Information Systems

There are two main mechanisms in place to collect agricultural market price information in Ghana: (1) the GOG **Statistics, Research, and Information Directorate (SRID)** at MOFA; and (2) private businesses, primarily one business called Esoko. SRID focuses on data collection while Esoko specializes in data collection and dissemination.

Key Supporting Institutions

- Statistics, Research, and Information Directorate (SRID)
- Esoko
- Farmline/Voto Mobile
- ISKA Weather
- mFarms
- Ghana Statistical Service (GSS)
- Ghana Export Promotion Council
- MOFA Extension Service
- Public sector warehouses
- UN Humanitarian Response Depot
- Ghana Highway Authority (GHA)
- West Africa Trade Hub (WATH)
- Borderless Alliance
- Ghana Private Roads Transport Union)
- Ghana Haulage Transport Owners Association
- Numerous producer associations and exporter associations (VEPEAG, SPEG)
- Donor-funded projects
- Large agribusiness exporters

SRID collects agricultural statistics to inform policy makers and works with the Permanent Inter-State Committee for Drought Control in the Sahel on early warning monitoring and to produce food security outlooks. According to SRID staff, they collect prices (farm gate, retail, and wholesale) on 42 commodities across 20 urban markets each week and across 178 rural and urban markets per month. The majority of SRID enumerators are women and they transmit the data to MOFA district and regional offices either by phone or email (data is collected on pen and paper). Data is compiled and sent to Accra for use by MOFA, GSS, and others (frequently students) who submit an official letter to the directorate requesting data. Select price data are available on the MOFA website through 2014, but not for more recent years. SRID views market price collection as a tool to inform policy and has not made an effort to feed market price information to farmers or traders.

Esoko collects weekly market prices, independent of SRID, and has its own enumerator network. Esoko collects price (retail and wholesale) information on 58 commodities across 52 urban and rural markets in real time using mobile tablets, and thus verified by GPS coordinates. Esoko disseminates the price information, along with weather data and good agricultural practices (GAPs), to farmers subscribed to their service via SMS and voice messaging.[138] Complementing its messaging service, Esoko has a call center where farmers can ask questions about the data or seek agronomic advice in 14 different languages. Regular subscribers include individual farmers, producer associations, and private agribusinesses.

The market for information dissemination and mobile agriculture extension (also called E-extension) is slowly growing. **Farmline/Voto Mobile** is targeting maize farmers with their mobile extension platform (their price data is purchased from Esoko), and **ISKA Weather** is a subscription based service that provides farmers with weather forecasts to inform decision making around planting, fertilizing, and harvesting. Another tool in the market is **mFarms**, a web-based application that allows agribusinesses to manage their inputs, extension, fertilizer, and market information all in one platform.

As for research initiatives, the **Ghana Statistical Service (GSS)** is piloting an integrated agricultural survey called AGRIS, and they're working with CountrySTAT on data publication. In another effort, SRID works closely with IFPRI on the annual Ghana agricultural production survey; this year SRID is pre-testing a survey instrument for a nationwide agricultural census, which has not been conducted in over thirty

[138] Weather information and weather predictions are provided to Esoko by a company called, aWhere.

years. For export data, the **Ghana Export Promotion Council** has information on global market trends, and Customs and MOTI house import, export, and other market data.[139]

Extension Services

MOFA/Extension Services. Agricultural extension is a public good and is especially important in agrarian economies. Improving production, whether through seeds, fertilizer, machinery, finance, or better agronomic information from the extension service, leads to better yields and prices.

MOFA estimates there is currently about one MOFA extension agent for every 1,500 farmers, while others say the ratio is much worse. Furthermore, the extension workers are aging and have not kept abreast of technology advancements in agricultural production and technologies. A local NGO in the northern region reports that the majority of female farmers do not even know about the existence of extension services. In some communities, because women avoid talking with males outside their families and are especially hesitant with government staff, even with extension workers it would be culturally difficult for some women farmers to comfortably access information. In short, for all of these reasons, MOFA is not fulfilling its supporting role of providing reliable and sufficient extension services to Ghanaian farmers. Under the new administration, the Planting for Food and Jobs Campaign aims to recruit about 2,000 new extension agents.[140]

To compensate for the insufficient government extension workers, agronomic information is provided to farmers by other entities, such as donor-funded agricultural development projects, large agribusiness exporters that have outgrower schemes, and producer associations.

Storage Providers

Public sector warehousing is used for MOFA/NAFCO, National Disaster Management Organization (NADMO), Ministry of Education, and COCOBOD.

The quantity of available **commercial storage** nationwide is unclear. Since public storage has become unreliable and inaccessible over the years, commercial actors have leaned toward building their own spaces, especially in Tema, Kumasi, and Takoradi. In general, warehouses in the north are smaller and tend to fill up during maize and rice harvests. Imported grains, such as rice for urban consumers and maize for animal feed and confectionary purposes, also compete for warehouse space.

At the **Port of Tema**, 77,200 square meters of paved area can be used for the storing containers, steel products, and other conventional cargo. The closed storage area, which is about 25,049 square meters, consists of six sheds with a total storage capacity of 53,000 MT. There are various private storage and warehousing facilities located in and around the port. The Golden Jubilee Terminal manages a bonded warehouse of 2,108 square meters.[141]

The availability, reliability, and accessibility of **on-market storage** varies by market, vendor, and goods. For example, at an urban market in Tamale the established vegetable retailers pay a monthly fee of Gh¢5 to a security guard so goods can be stored overnight. Other farmers and informal traders only sell goods during harvest and do not have established locations in the market, which means that each evening, they must bring their unsold quantities home.

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[139] Trade data is captured from GCNet, but it also includes imports for Burkina and excludes cross-border trade, so GSS attempts to clean and analyze the data.
[140] Ghana Launches Food and Jobs Campaign, April 2017. http://pulse.com.gh/agriculture/agriculture-in-ghana-ghana-launches-planting-for-food-jobs-programme-id6555495.html.
[141] WFP, Ghana Logistics Capacity Assessment, 2016.

On-farm storage practices and infrastructure remains rudimentary as farmers still use traditional mud silos for storing cereal. These limits on availability and quality of rural storage prohibits farmers from being able to release their products to the market at select times.

The **UN Humanitarian Response Depot** at Kotoka International Airport supports emergency response in West and Central Africa regions. The warehouse has 3,600 square meters of covered storage, 2,000 square meters of open storage, and 156 square meters of cold storage. The depot is accessible to numerous partners and countries that assist in humanitarian interventions; for example, in 2014, the depot hosted the headquarters for the UN Mission for Ebola Emergency Response.[142]

Warehouse Receipts System

The Ghana Grains Council (GGC) started a warehouse receipt system in 2012, but it is currently on hold. The warehouse receipt system has gone through numerous reviews and studies to figure out how to incorporate more smallholder farmers rather than just larger traders, but a decision has been made on how to move forward.

The GGC does not own warehouses but they have certified 12 warehouses with a total capacity of 54,600 MT for a warehouse receipt system.

Weigh Stations

As of April 2017, there were 17 functioning and permanent weigh stations and 8 functioning and mobile weigh stations existing in the country, which is a vast improvement from the 3 weigh stations reported in the 2008 AgCLIR. Private companies manage each weigh station and work alongside the police who provide enforcement. Drivers who refuse to stop face fines. Additionally, drivers with overloaded trucks must pay a fee and remove the extra load to meet the applicable axle load restriction. The **Ghana Highway Authority (GHA),** under Ministry of Roads and Highways, oversees the weigh stations and reports they want to start charging fees for storing goods removed from excess loads as a deterrent but do not yet have a policy in place.

The GHA plans to introduce more mobile weigh stations because of the belief that drivers often find ways to avoid the permanent stations.

West Africa Trade Hub (WATH) reports the weigh stations are not uniformly calibrated and lack standardization on fees. Transporters also report corruption at weigh stations and tolerance for overloading after payment of authorized fees. WATH and organizations such as **Borderless Alliance** are working to harmonize policies and procedures at weigh stations and checkpoints.

Transport Associations

Transport associations advocate for the industry and provide support to their members. The **Ghana Private Roads Transport Union** has offices in every region, and there are more than 3,200 members in the northern region alone. Membership is made up of both drivers and owners, and there are specific branches for taxi, bus, and cargo. The **Ghana Haulage Transport Owners Association** is active in negotiating axle load control with the Ministry of Roads and Highways and communicating about policy changes with transport companies.

Agricultural associations can help facilitate the export process for their members. For example, **Sea-Freight Pineapple Exporters of Ghana** (**SPEG)** supports their exporters with sector advocacy and marketing exhibitions, but they also organize shipping between]exporters and vessels. The exporting companies send SPEG their weekly forecasts of volume and destinations and SPEG coordinates with the

[142] UNHRD, http://unhrd.org/depot/accra.

Fruit Terminal Company (FTC) to ensure cold storage space at the port. SPEG is not involved in price and contract negotiations between exporters and the importing companies in the EU.

SOCIAL DYNAMICS

Consumer Demand

Traditionally, awareness in Ghana about food safety has been low, and therefore Ghanaian consumers have not demanded high-quality foods. However, with a growing middle class in Ghana, especially in Accra, this consumption pattern has changed. With an increased number of supermarkets and packaged vegetables and fruits, Accra consumers are paying premiums for these quality reassurances. It is expected that this preference will continue to grow as supermarkets become more popular and general awareness increases about health and food quality.

Smaller supermarkets are now open in secondary urban areas, such as Tamale. They sell dry goods, snacks, sweets, and alcohol but fresh produce and meat are not yet available, and can only be purchased in open-air markets.

Role of Women

Women have strategic importance to Ghana's agricultural value chains. They are heavily involved in production, processing, trading/marketing, and cooking/household consumption. The Women in Agriculture directorate unit at MOFA is focused on four areas (nutrition, food safety, value addition, and gender mainstreaming) that have been deemed relevant in the Gender and Agricultural Development Strategy II and at the overall policy level for improving the role of women in agriculture.

A local NGO in the northern region reports that although women are active farmers, they have limited access to information about GAPs. In many communities, women are discouraged from talking to many people, especially males outside their families, and therefore do not always benefit from government programs, such as the fertilizer subsidy. Esoko reports that many women do not own phones themselves, and that registration remains under their husband's name.

Nevertheless, women dominate food processing at the household level and the agribusiness level. On the farm, women are the main processors of palm oil, cassava flour, shea butter, coconut oil, groundnut oil, and palm kernel oil. When agribusinesses started to become established about 15 years ago, community authorities decided that women should work in packhouses, and this tradition has continued. One agricultural exporting company reported that women comprise 40 percent of its packhouse staff. Less than 10 percent are field staff, where women work only in the nursery and compost jobs, but not the more labor-intensive fieldwork roles.

Women are active traders and retailers, especially for select food crops such as maize, rice, fish, vegetables, and yams, while men tend to control more bulk/wholesale aspects and cash crops. For example, the onions imported from Niger and the wholesale yam trade is dominated by men.

The Women in Agriculture directorate unit at MOFA report about only half the women traders are literate. While women can legally purchase land, lands remains largely in the hands of men, because they have more access to financial means. This limits women from using land as collateral for credit.

Role of Youth[143]

The GOG recognizes the strategic importance of bringing the youth population into the agriculture sector. For example, COCOBOD is trying to reverse the aging trend of cocoa farmers by encouraging the involvement of youth, who typically have been more attracted to mining or farming of other crops, such

[143] According to the Ministry of Youth and Sports, in Ghana, "youth" are defined as individuals between the ages of 15 and 35, http://moys.gov.gh/moys/?page_id=39.

as maize.[144] COCOBOD has sponsored young farmers to attend international cocoa events and is trying to motivate youth to stay in their farming communities and dedicate their livelihoods to cocoa. Some agribusinesses noted that to attract young graduates with agricultural degrees, they have to offer full services and benefits. Investment in on-site housing and health clinics for workers is becoming more of a necessity.

Ghana has a high cell phone penetration rate, estimates range from 110 percent to as high as 128 percent.[145] Esoko reports that many of their subscribers rely on youth in the household to read messages, send messages, and communicate with the Esoko call center.

Trust and Confidence

Businesses report that as a whole Ghana is a safe and friendly place to do business and to enter the market. Ghana provides a stable democracy in which businesses can plan into the medium term and strategize their investments with confidence in the security of the operating environment and market.

Smallholder farmers put more trust in their fellow "successful" farmers for agronomic advice than agro-input dealers or extension workers. Farmers become natural role models when they have cohesive farms and bountiful yields, and this is further demonstrated with the nationwide *Farmer of the Year* awards. This custom is probably the result of (a) the value of strong networks at the community level and (2) the inability of the current extension system to reach and make on impact on farmer livelihoods. Additionally, in some communities, people trust other individuals who have proven integrity and reliability, and those traits can earn as much respect as someone owning a lucrative farm.

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[144] Business & Financial Times, February 2016, http://thebftonline.com/business/agribusiness/17248/attracting-youth-into-cocoa-cultivation.html#.

[145] This 110 percent estimate is based on communication with an Esoko representative in 2017 and the 128 percent estimate is from the Mobile Alliance for Global Good in 2016.

TRADING ACROSS BORDERS

Ghana has a vibrant civil society and as such, several well-organized trade associations have successfully advocated for trade reforms or have formed partnerships with the government to address specific export or import issues relating to particular value chains. With ample natural resources, relatively good infrastructure, political stability, and a government that promotes trade and business friendly policies, Ghana has positioned itself as an attractive location for agribusiness.

Moreover, Ghana has recently ratified several international trade agreements and adopted new laws, policies, and regulations to improve trade practices and procedures. The country is facilitating trade procedures by expanding its online Single Window platform. The movement of goods in and out of the main port at Tema is improving, as the port continues its expansion and upgrade.

On the negative side, the physical inspection of goods and the time it takes to clear goods varies greatly. As previously noted, excessive checkpoints along the major trade corridors continue to be an issue and renewed efforts are needed to adhere to ECOWAS agreements regarding road inspections.

Figure 8: Trading Across Borders: World Bank Global Indices

Index	Ghana	Côte d'Ivoire	Benin	Togo	Total Economies Ranked
Doing Business: Trading Across Borders 2017	154	150	133	117	190
Enabling the Business of Agriculture: Markets 2017	54	60	34	N/A	62
Logistics Performance Index 2016	88	95	115	92	160

Almost one-third of the goods exported from Ghana are agricultural products. Ghana is the world's second largest producer of cocoa after neighboring Côte d'Ivoire; cocoa beans account for 60% of Ghana's agricultural exports. The next largest share (20%) is comprised of coconuts, brazil nuts, and cashew nuts.[146] Ghana's imports consist primarily of manufactured goods such as motor vehicles, construction material, and petroleum, but 12% of its imported goods are agricultural products, including rice, meat, and sugar. Imports exceed exports by a significant margin: Ghana has a US$3 billion negative trade balance.

Regulatory reforms and implementation efforts have propelled Ghana to higher rankings in key international indices for cross-border trade (see Figure 9).[147] Ghana's rank has increased for Trading Across Borders in the Doing Business Index, from 167th in 2015 to 154th in 2017. Ghana ranks first in West Africa and 9th out of 47 in Sub-Saharan Africa. Ghana has also improved its rank in the Logistics Performance Index, from 100th in 2014 to 88th in 2016. It seems that if Ghana stays the course to implement its current laws and international trade commitments, then continued improved practices and higher rankings should become observable.

[146] WTO Statistical Database, available at: http://stat.wto.org/CountryProfiles/GH_e.htm

[147] The World Bank Enabling the Business of Agriculture (EBA) Index Markets indicator covers three topics: producer organizations, plant protection, and agricultural trade. Producer organizations are discussed in the Enforcing Contracts chapter, and plant protection in this chapter. The last topic on trade and contractual relations is covered in the Enforcing Contracts chapter, as well as phytosanitary certificates, which are covered in this chapter.

LEGAL FRAMEWORK

Key Laws and Regulations

- WTO Technical Barrier to Trade Agreement
- WTO Sanitary and Phytosanitary Measures Agreement
- WTO Trade Facilitation Agreement (TFA)
- ECOWAS Revised Treaty
- Economic Partnership Agreement (EPA)
- African Growth and Opportunity Act (AGOA)
- Ghana International Trade Commission Act, 2016 (Act 926)
- Export and Import (Amendment) Act, 2000 (Act 585)
- National Export Strategy for the Non-traditional Sector (2012–2016) (NES)
- Customs Acts (Acts 891, 950, and 923)
- The Plants and Fertilizer Act, 2010 (Act 803)
- Plant Fertilizer Regulations 2012 (L.I 2193)

Ghana has been a member of the World Trade Organization (WTO) since its inception in 1995. Standards, grades, and certification procedures facilitate regional and international trade, because different parties can specify the characteristics of a commodity or product. However, the particular standards or certification requirements a country imposes can be difficult for foreign companies to meet. To this end, the **WTO Technical Barrier to Trade Agreement** seeks to ensure that standards, testing, and certifications do not pose undue burdens or obstacles to trade, or function as protective measures for domestic industries. However, under WTO rules, governments are allowed to take measures to protect human, animal, and plant health, provided that it does not result in discriminatory trade practices. Similarly, the **WTO Sanitary and Phytosanitary Measures Agreement** allows member states to set their own food safety and animal and plant health standards, if those standards are based on science. However, WTO members are encouraged to use international standards and guidelines to harmonize trade practices and reduce possible trade disputes. In that regard, Ghana is a signatory to the International Plant Protection Convention (IPPC), CODEX Alimentarius, and the World Organization for Animal Health (OIE).

Ghana ratified the **WTO Trade Facilitation Agreement** (TFA) in January 2017, and following ratification by six other states, the multilateral agreement went into effect in February 2017. The TFA (1) provides for improvements in the availability and publication of rules, costs, procedures, and practices for importation, exportation, and transit; (2) publishes that information online; and (3) establishes and maintains contact points to respond to questions about trade across borders. The TFA also establishes (a) rules to improve release and clearance of goods, including pre-arrival processing; (b) electronic payment systems; (c) procedures allowing the release of goods prior to the final determination of customs duties, taxes, fees, and charges; and (d) risk management systems for customs control. The TFA provides for expedited release time for perishable goods and recommends that countries conduct and publish average release time studies.

For developing countries like Ghana, the level of implementing TFA, and the timing its implementation, will depend on the government's implementation capacity. According to the TFA (art. 13-16), developing countries can designate whether they will be able to implement certain provisions within a year from the treaty's effective date (Category A); after a longer specified timeframe (Category B); or after receiving assistance and support for capacity building (Category C). As detailed in the Implementing Institutions section, the GOG has assessed its current level of compliance and its implementation capacity across these three categories.

Ghana is also a member of the Economic Community of West African States (ECOWAS), a regional economic union made up of 15 member states. As stated in the **ECOWAS Revised Treaty of 24th July 1993**, ECOWAS promotes cooperation and integration in a host of areas, including trade. The treaty establishes a common market allowing free movement of persons, goods, services, and capital. Under the treaty, member states have agreed to progressively abolish customs duties levied on imports and exports from the common market, and gradually establish a common external tariff for all goods imported from third countries. The common market has gradually been implemented during the last two decades; as of 2003, goods originating from ECOWAS member states circulate duty-free in the union (Protocol A/P1/1/03).[148] The ECOWAS Common External Tariff took effect in January 2015, with rates ranging from 0% to 20% percent depending on the type of goods.

After almost 10 years of negotiations, the ECOWAS heads of states endorsed the **Economic Partnership Agreement (EPA)** with the EU. Following the ECOWAS endorsement, the Ghanaian parliament ratified the EPA in 2016. The EPA provides duty-free and quota-free access to the European markets for all imports originating from Ghana. In return, Ghana and other ECOWAS countries have agreed to gradually liberalize imports from the EU market. The agreement also calls for cooperation on customs and trade facilitation and the use of international standards for customs, valuation, and trade. Ghana's agricultural exports to the EU consist primarily of the following products: 30% cocoa beans, 15% cocoa butter, 7% prepared and preserved fish, and 4% fruits and nuts.[149] While the Ghanaian export sector was advocating for the ratification of the EPA, some civil society groups voiced concern that the agreement would lead to local job losses and the collapse of domestic industries.[150]

The United States has passed a law called the **African Growth and Opportunity Act (AGOA)**, under which Ghana has duty-free and quota-free access to the US market for a select number of products, including agricultural. However, US imports of Ghanaian agricultural products has been modest: in 2016, the US imported US$240 million of agricultural products from Ghana, and only US$189,000 qualified for AGOA.[151]

The recently adopted **Ghana International Trade Commission Act, 2016 (Act 926)** establishes a Commission to (1) oversee compliance with international trade commitments; (2) ensure fairness, efficiency, and transparency in applying international trade measures; (3) foster fair competition; and (4) protect the domestic market from unfair trade practices. Established as an independent agency, the Ghana International Trade Commission (GITC) functions as a research and advisory body as well as a dispute resolution body. In its first-described function, GITC will study the competitiveness of Ghana's tariff structure and recommend tariff levels to the government. GITC will also provide analytical support and advice for trade-related legislation and international trade negotiations. In its second function, the GITC will settle disputes between importers and Customs regarding classification and valuation of imported products. Modeled after the International Trade Administration Commission of South Africa, the GITC will better equip Ghana to reap the benefits of international trade.

The **National Export Strategy for the Non-traditional Sector (2013-17) (NES)**, builds on the Second Medium Term Private Sector Development Strategy 2010–15, the National Trade Policy, and the Ghana Industrial Policy by reaffirming the private sectors' role in expanding exports beyond the traditional mainstays—cocoa, timber, and minerals. The NES identifies eight priority segments, including frozen and processed fish; vegetable and tree crop oils and nuts; fresh and processed fruits and vegetables; root crops; grains; legumes; and processed cocoa products. To support

> The NES employs a somewhat unorthodox but attention-grabbing metaphor by referring to the country's economy as a "national cake." Through the process of baking the national cake—that is, increasing the value of non-traditional exports—everyone's share of the national cake will increase—that is, Ghana's overall standard of living will improve for everyone.

[148] Protocol A/P1/1/03 Relating to the Definition of the Concept of Products originating from Member States of the Economic Community of West African States.
[149] The European Commission, The Economic Partnership Agreement (EPA)-A New Partnership for Trade and Development, 2016. Available at https://eeas.europa.eu/sites/eeas/files/epa-ghana-brochurejune2016.pdf.
[150] Citifmonline, Ghana's Parliament ratifies EPA with EU, Wednesday 3rd August, 2016. http://citifmonline.com/2016/08/03/ghanas-parliament-ratifies-epa-with-eu/.
[151] https://agoa.info/profiles/ghana.html.

these priorities, the NES seeks to improve implementation of policies that reduce uncertainties, risks, and costs of producing goods for export, and to strengthen the capacity of public and private institutions to support export activities.

The **Export and Import (Amendment) Act, 2000 (Act 585)** is a framework law for import and export, consisting of just four pages, so it contains relatively few regulations. The law states that anyone may import or export, but that other regulations may be promulgated to dictate restrictions or the need to obtain permits, licenses, or certificates for importing or exporting. Considering Ghana's more recent international and regional commitments, as well as national legislation, this law should be reviewed to better reflect the current legal framework for international trade.

The recently adopted **Customs Act, 2015 (Act 891)** is a framework law regulating the processes, actors, and institutions involved in handling goods entering the country and existing customs-controlled areas. The law states that a duty drawback for imported goods that are subsequently exported, or imported goods that are processed and subsequently exported, will be paid within 12 months after the drawback claim has been verified. Many stakeholders find the 12-month waiting period too long, and as one importer pointed out, "It's an interest-free loan to the government." The law also states that only businesses that are wholly owned by indigenous Ghanaians can be licensed customs house agents (for example, customs brokers and freight forwarders). The Ghana Revenue Authority issues certificates of proficiency in the customs business to customs house agents.

A separate volume of tariff schedules, the **Customs (Amendment) Act, 2015 (Act 950**) is based on the World Custom Organization's Harmonized Commodity Description and Coding System (HS). The Act contains two schedules: a general schedule and the ECOWAS preferential schedule for import duties and taxes on products originating from ECOWAS. The general schedule imposes a 5% import duty on most seeds, but no import duty on most fertilizers except for those containing phosphorus and potassium, or nitrates and phosphates, which are subject to a 5% import duty. Under the ECOWAS preferential schedule, all unprocessed products, including live animals, meat, fish, vegetables, fruit, grains, seeds, plants, and fertilizers, are exempt from import duty.

The **Customs (Amendment) Act, 2016 (Act 923)** establishes the National Single Window System as a single-entry point for obtaining information and submitting documents to satisfy import, export, transit, and other customs-related requirements. This law stablishes a National Risk Management Committee of 24 government entities to formulate risk management policies and procedures and supervise the National Risk Management Team. The National Risk Management Team, made up of representatives from various government entities, implements the National Single Window risk management policies and procedures and establishes and maintains a national risk register.

Pest infestation can lead to significant yield losses, and can damage the reputation of products, exporting businesses, or even whole countries. To manage and control pest, the GOG has adopted a regulatory framework guided by the International Plant Protection Convention (IPPC). **The Plants and Fertilizer Act, 2010 (Act 803)** regulates the import and export of plants and plant materials, as well as the containment and eradication of plant pests. As discussed in more detail in the chapters on Obtaining Seed and Obtaining Fertilizer, the Act also regulates the import and export of seed, as well as the import of fertilizers. The **Plant Fertilizer Regulations, 2012 (L.I 2193)** provide details on the implementation of the Act.

The Plants and Fertilizer Act stipulates that for all plant and plant material, an import permit is required from the Ministry of Food and Agriculture's Plant Protection and the PPRSD in addition to a phytosanitary certificate from the exporting country. The import permit is only valid for one shipment, and importers therefore need to obtain a permit each time. Upon importation, the importer needs to submit an import declaration, together with the import permit and phytosanitary certificate, to the GRA. Imported plant and plant material should be inspected in accordance with the procedures established by the IPPC, including documentation checks, verification of the integrity of the consignment, visual inspection, and sampling and testing. However, neither the law nor the regulations provide for an inspection scheme based on risk. Products that have been processed to the point where they cannot be infested with a quarantined pest, such as canned or frozen food, are excepted from phytosanitary measures and certifications. The Plant Fertilizer Regulations (Schedule 3) provides a detailed list of excepted commodities.

Exporters of plants and plant material must also register with the PPRSD and renew their registration annually. PPRSD is charged with conducting inspections of plant and plant products prior to exportation to ensure that the consignment meets phytosanitary requirements. Only after a satisfactory inspection does PPRSD issue a phytosanitary certificate.

PPRSD is expected to conduct pest risk analyses in accordance with the standards established by the IPPC. MOFA may declare a plant pest a regulated pest if it presents a threat the production of or trade in plants or plant material. All persons who suspect or are aware of an unknown pest or quarantined pest are obligated to immediately notify MOFA. MOFA also has the authority to establish domestic checkpoints to restrict movement of quarantined pests.

IMPLEMENTING INSTITUTIONS

The majority of formal trade in Ghana, which generates formal trade statistics and the collection of revenues, comes in through the Port of Tema. The ease of importation and exportation through the port is both a function of the physical infrastructure and the administrative procedures to import or export goods. Although there is ample room for improvement, port expansions have improved the physical infrastructure, and the introduction of e-submissions has enhanced administrative procedures. However, the time it takes to clear goods in the port varies significantly depending on the goods imported, the quantity of goods, and if the importer and the importer's freight forwarder are organized, repeat players with an established network in the port. One freight forwarder we talked with said that when all paperwork is prepared and in order, he can clear goods in 48–72 hours.

Key Implementing Institutions

- Ghana Ports and Harbours Authority
- Ghana Revenue Authority (GRA), Customs Division
- Ghana Police Service
- Ministry of Trade and Industry (MOTI)
- Abidjan-Lagos Corridor Organisation (ALCO)
- Ministry of Highways and Roads
- Ghana Export Promotion Authority (GEPA)
- Ghana Standards Authority (GSA)
- Food and Drugs Authority (FDA)
- Plant Protection and Regulatory Services Directorate (PPRSD)

According to the World Bank's 2017 Doing Business Survey, it takes 108 hours to comply with border procedures[152] for export and 89 hours for import in Ghana. As a comparison, Ghana is close to the Sub-Saharan Africa average time with respect to the time it takes to comply with export border procedures (103 hours) but is much better than the average (144 hours) with regard to import procedures.

According to the World Bank's Logistics Performance Index (LPI), the clearance time in Ghana in 2016, with or without physical inspection of import goods, was two days of days without physical inspection. However, Côte d'Ivoire can clear goods that are not physically inspected in one day. The rate of physical inspections remains much higher in Ghana than in Côte d'Ivoire—33% versus 6%. The LPI survey also reveals that import, export, and logistics professionals reported that in Ghana, 65% of imports and 71% of exports always or almost always receive clearance and are delivered as scheduled. Although not terrible, these figures do indicate ample room for improvement.

[152] The time for border compliance includes the time to obtain, prepare, and submit documents during port or border handling, customs clearance, and inspection.

Ghana Ports and Harbours Authority manages the two ports in Ghana, the Port of Tema, and the Port of Takoradi. The Port of Tema, located outside Accra, is the country's primary port with by far the highest volume of containers and cargo. According to official port statistics, the import, export, and transit traffic going through the Port of Tema is steadily increasing.[153] To respond to the increase in trade, and as part of a public-private partnership, the port has expanded its capacity and is currently constructing a new container terminal with four additional berths. According to freight forwarders and the larger import/export businesses consulted for this report, the expansion of the Port of Tema has eased congestion. The World Economic Forum's Global Competitiveness Index ranks Ghana's quality of seaport infrastructure at 82 out of 138, which is close to the ranking of Benin. However, neighboring Côte d'Ivoire ranks much higher at 28 out of 138 countries.[154]

In December 2009, four tax revenue and customs duties agencies, including the Customs, Excise, and Preventive Service, merged into the **Ghana Revenue Authority (GRA)** to more efficiently mobilize revenues. The GRA has three main divisions: The **Customs Division**, the Domestic Tax Revenue Division, and the Support Services Division. In 2014, the Customs Division collected 40 percent of all tax revenues from importation.[155] The core function of the Customs Division is collecting revenue rather than facilitating trade. It receives a revenue target each year from the MOF, and its headquarters assigns collection targets to each border post. According to one interviewee at GCNet, 95 percent of all customs revenues are collected from the Port of Tema.

Integrating Customs into the GRA has increased efficiencies and coordination, but some staff consider the new organization too centralized. For instance, applications for duty drawbacks must be submitted to the Commissioner of Customs, which if approved, is then sent to the head of the GRA, the Commissioner General, for approval. It then goes to the Commissioner of Support Services for payment. Requiring approval from the very top of the GRA adds time to the process, and importers said that it can take six months to a year to receive a duty drawback payments. However, at times, the process is delayed because of limited funds for payments.

Ghana has an online single window system, the **Ghana Single Window**, connecting the trade and logistics community with government institutions for filing trade-related documents, and for receiving document and shipment status updates (http://www.ghanasinglewindow.com). Parts of the online platform have been in place for almost 15 years, but in the last two years the government has reinvigorated its commitment and efforts to bring all aspects of international trade processes under the Single Window. The Ghana Single Window is governed by a high-level political Steering Committee, while the operational direction and management is led by the Technical Committee, made up of representatives from the government and logistics and private sector organizations. The Ghana Single Window is maintained and supported by a public-private partnership, the **Ghana Community Network Systems Limited (GCNet)**, in which the government holds 38 percent. To support the implementation of the Ghana Single Window, the government contracted West Blue Consulting in 2015 to provide technical assistance as well as to develop and support the implementation of the Ghana National Single Window Strategic Plan and Roadmap 2016–26.

The Ghana Single Window provides information about the different steps and required documents for importation and exportation. Parties engaging in cross-border trade can obtain government permits and licenses and submit importation and exportation documents including invoices, bank information, bills of lading, packing lists, and the manifests through the Single Window's Pre-Arrival Assessment Reporting

[153] Ghana Ports and Harbours Authority, Statistics 2003-2016. Available at: http://ghanaports.gov.gh/Files/TEMAPORT/tema%20PORT%20PERFORMANCE%202003%202016-1.pdf.

[154] World Economic Forum, Global Competitiveness Index 2016-2017. Available at http://reports.weforum.org/global-competitiveness-index/country-profiles/#economy=GHA.

[155] Ghana Revenue Authority, GRA 2nd Strategic Plan 2015–2017.

System (PAARS). According to customs clearing agents, freight forwarders, and logistics professionals, the Ghana Single Window works reasonably well. However, not all government institutions and agencies involved in cross-border trade are connected to the platform.

In 2016, the Ghana National Single Window Strategic Plan and Road Map took stock of the level of electronic automation among government institutions involved in cross-border trade transactions. The report noted that the level of ICT maturity, adaptation, and availability varied greatly, which our assessment team also observed and confirmed after visiting various government offices. Out of the 37 institutions involved in administering cross-border trade, 23 issued paper-based approvals, permits, or declarations. Altogether, 12 government institutions, including the Ghana Standards Authority, the PPRSD, and the Bank of Ghana used electronic submissions and transactions but paper documents were still needed. In fact, only two government agencies, the FDA and MOTI, had fully or almost fully adopted paperless transactions—for the FDA, issuing import and export permits, and for MOTI, issuing import declaration forms. According to the stakeholders we contacted for this report, the GOG should prioritize bringing more government institutions and their processes onto the Ghana Single Window. To that end, the government expects to continue improving its online presence in the near future.

Freight forwarder and customs clearing agents confirmed that although they can submit documents online, they still need bring physical copies to various offices in the port of Tema. To some extent, government agencies or individual government agents might require the submission of paper copies, but logistic professionals follow this practice to ensure that their shipment gets processed and released in a reasonable time.

Several stakeholders noted that the expansion of the Ghana Single Window requires ICT competency, which is inconsistent across agencies. Therefore, they believe that the dual use of the online platform and the paper copies will be phased out as the government's ICT competency increases. However, one freight forwarder noted: "It's also a matter of creating jobs—half of this room of my staff [about 10 people were in the room] would not have a job if the system went completely electronic."

Up until September 2015, five private companies in Ghana conducted destination inspections. The Ghana Revenue Authority exited the arrangement in order to bring back core customs functions to the GRA, limit duplicative importation processes, and facilitate coordination between government agencies. The Customs division of the GRA is now processing the Customs Classification and Valuation Report (CCVR) through the Pre-Arrival Assessment Reporting System (PAARS), a component of the Ghana Single Window. According to the Ghana National Single Window Strategic Plan and Roadmap (2016), PAARS has significantly improved the clearance time for goods at the ports. Previously, it took up to two weeks for trade documents to be processed, but under PAARS it takes between two hours and two days.

The consultancy firm West Blue is providing the GRA's Customs division with training and technical assistance to implement PAARS. According to a senior GRA official, the implementation of PAARS is progressing well, but he estimated that GRA is still misclassifying 30–40 percent of imported goods. From the GRA point of view, misclassification is problematic because custom revenues are potentially lost. For importers, misclassification is problematic because if their goods are over-valuated they get taxed at a higher rate. According to Customs, importers are complaining about misclassification. One freight forwarder noted the GRA has an appeal process for importers dissatisfied with a classification. However, the prohibitive expense of the time it takes to appeal, which the freight forwarder estimated at about one week, as well as the cost for renting warehouse space to store the goods in the port while resolving the dispute, might make appealing undesirable.

Customs Division issues the CCVR, but a consultancy firm has been contracted to support the GRA to verify the declared value of imported goods against UN websites or directly with the suppliers. However, one senior Customs official estimated that only 40 percent of declared valuations are confirmed, because of limited human resources. The issue of misclassifications and valuation increases the number of inspections during the post-clearance process in the Port of Tema.

The GRA has a **Risk Management Unit,** which has developed a risk management strategy to speed up clearance procedures. The Pre-Arrival Assessment Reporting System enables automatic risk analysis and selective targeting of higher-risk consignments. In addition, security risks, how the consignment is packed, and information from previous transactions are also used to assess the appropriate level of inspection before clearance. However, a Customs official noted that more could be done to implement the strategy, because Ghana is still performing physical inspections on a high percentage of imported goods. Based on the initial risk assessment through PAARS, consignments are classified as green, yellow, or red. A senior Customs official estimated that about 10-15 percent of consignments are classified as green, and are not scanned or physically inspected. Green consignments are typically cleared in a day. Approximately 20-25 percent of consignments, primarily containers with homogenous goods, are classified as yellow. Yellow consignments are scanned and only opened if needed. Although it is possible to clear yellow consignments in one or two days, Customs officials report that more often it takes three to four days. Customs may also escort yellow goods that have been scanned in the port to warehouses outside the port for inspection.

In the World Bank's LPI, 42 percent of Ghanaian logistics professionals indicated that they may choose the location for the final clearance of imported goods. Of those professionals, 83 percent indicated that goods may be released pending final clearance against an accepted guaranty.

According to the LPI, 33 percent of goods entering Ghana (primarily through the Port of Tema) are physically inspected, and a senior Customs official estimated that the number could be a lot higher at 50–60 percent; this rate is the highest in the region. Mixed containers and cargo that is not in containers and therefore cannot be scanned are more likely to be flagged red. In the Port of Tema, red-flagged consignments can take 7–10 days to clear, while it only takes one to two days to clear such consignments at the airport. According to the senior Customs official, the Port Authorities need to be notified at least 24 hours before inspection, but that it can take two to three days for the Port Authorities to authorize the inspection.

Moreover, the Customs Division, together with all relevant government authorities, which vary based on shipment (for example, the FDA, PPRSD, the Police, the Port Authorities, and /or the GRA), need to be present to open the consignment. To gather all representatives for the inspection may take days. Larger companies that regularly import the same goods, work with the same customs and clearing agents who know the procedures, and have well-established connections with the government inspectors, can clear goods faster. Those companies can speed up the clearance process because they are more likely to have all their paperwork in hand and in order, and can rely on their network to bring all inspectors together quickly. They can clear yellow containers, and sometimes even red containers, in a day or two.

At least, inspections should be coordinated so that there is only one inspection, but that is not always the case. The LPI notes that 5.5 percent of imported shipments are physically inspected more than once. A recent assessment of Ghana's clearing system noted duplications of cargo inspections, and that different agencies often open containers two or three times.[156] As noted in the Ghana National Single Window Strategic Plan and Roadmap, the government recognizes the high level of physical inspections: "The percentage of physical intrusive inspection of goods is high. This makes inspections costly and time-consuming." To this end, the Strategic Plan and Road Map seeks to better integrate and develop a more scientific risk management system to reduce the number of scanning and physical inspections, and better coordinate joint inspections.

The **Regional GRA Customs Division** office in Tamale deals with a different set of issues than the GRA in Accra and Tema. Products destined for export that originate from the Northern Region are

[156] http://shippers.org.gh/wp-content/uploads/2016/07/GHANAS-CURRENT-COMMITMENT-ON-THE-MEASURES-OF-THE-WTO-TRADE-FACILITATION-AGREEMENT.pdf.

manually processed at the GRA office in Tamale. According to Customs in Tamale, the Ghana Single Window platform is not yet working for export. A number of other stakeholders in Accra and elsewhere were also operating under the impression that the Ghana Single Window platform was primarily for import and not export, but in fact, it works for both.

Illegal arms smuggled from Togo and armed robberies on the road are still an issue in the northern region. Customs has clashed with the regional **Ghana Police Service** about how to curb the circulation of illegal goods on the roads. Although Customs has limited its checkpoints to three to adhere to the ALCO/ECOWAS MOU (discussed below) for the region, it estimates that the police still have about 35 checkpoints throughout the region. According to the Customs Division in Tamale, police checkpoints are illegally holding up traders in transit. Recently, a truck driver was held up at a checkpoint for two days as the police confiscated customs documents until Customs released the driver (who according to the Customs officials had all his customs forms in order). Although Customs reported the issue to headquarters in Accra, and supposedly discussed the problem with the Ghana police service, the number of checkpoints and harassment in the region has not changed.

The **Ministry of Trade and Industry (MOTI)** has 11 different divisions, including the Standards Division, the Trade Facilitation Division, the Export Trade Support Services Division, and the Multilateral, Bilateral and Regional Trade Division. MOTI is coordinating with the **National Trade Facilitation Committee (NTFC)** to implement Ghana's commitments under the WTO Trade Facilitation Agreement. As noted in the Legal Framework section, the Trade Facilitation Agreement provides developing countries flexibility to prioritize and sequence trade facilitation measures into Category A, B, and C depending on their implementation capacity. MOTI and the NTFC have identified six Category A measures with which Ghana already complies; six Category B measures with which Ghana is partially compliant; and 24 Category C measures that the GOG will require technical assistance and capacity building to implement.[157] The implementation of the TFA is a political priority and with the support of the United Nations Conference on Trade and Development (UNCTAD), the government, in consultation with the private sector, is currently developing an implementation plan.

Figure 9: Selected list: Ghana's Category A, B & C Measures Under WTO Trade Facilitation Agreement

Category A	Category B	Category C
Common border procedures related to clearance	Pre-arrival processing	Perishable goods
Procedures related to rejected goods	Use of International Standards	Test Procedures
Establishment of the National Committee on Trade Facilitation	Separation of Release from Final Determination of Customs Duties, Taxes, Fees and Charges	Establishment and Publication of Average Release Times

In 2005, and under the auspices of ECOWAS, Ghana, Côte d'Ivoire, Togo, Benin, and Nigeria founded the sub-regional, intergovernmental **Abidjan-Lagos Corridor Organization (ALCO)**. With support from the World Bank and other development partners, ALCO is working to coordinate and improve trade facilitation, road corridor infrastructure, and HIV/AIDS interventions along one of West Africa's most important trade routes. In 2007, the five countries signed a Memorandum of Understanding (MOU) to reduce the number of checkpoints to no more than four checkpoints per 100 km along the corridor. According to an ALCO study, in 2011 Ghana had 28 checkpoints along the coastal corridor, primarily

[157] Ministry of Trade and Industry, WHO Trade Facilitation Agreement: Why Ghana Must Ratify, 2015. Available at http://moti.gov.gh/sites/default/files/content/documents/files/WTO%20Trade%20Facilitation%20Agreement%20-%20Why%20Ghana%20Must%20Ratify.pdf.

consisting of police checkpoints.[158] According to the MOU, there should be no more than four Customs and seven police checkpoints.

The **Ministry of Highways and Roads** is chairing the **ALCO National Trade Facilitation Committee**. According to the chairperson of the committee, in 2012, with financial support from the World Bank, the government trained the Ghana police, Immigration, and Customs to reduce the checkpoints along the corridor and saw some improvements. However, the Ministry of Highways and Roads believes the number of check points have increased, and are therefore seeking financial and technical support to hold refresher training courses for those institutions and monitor the number of checkpoints. To speed up border crossings, ALCO is establishing joint border posts through bilateral agreements. With financial support from the EU, Ghana and Togo are establishing a joint border post in Aflao, which is slated to open by the end of 2017. There are also plans to establish a joint border post with Côte d'Ivoire in Elubo.

Ghana Export Promotion Authority (GEPA), an agency under MOTI, is tasked with developing, promoting, and facilitating exportation from Ghana. GEPA has five regional offices in the country and provides information about import and export requirements. GEPA collaborates with a number of ministries, agencies, business associations, and projects to provide targeted training, lead trade missions, and attend trade fairs. GEPA issues export certificates, which can be renewed for Gh¢200 every year. An export certificate is not required to export, but it helps exporters connect and receive services from GEPA, and, according to GEPA, it gives exporters more credibility. Because export certificates are not required for exportation, they cannot be obtained through the Ghana Single Window, but GEPA is hoping to bring it offer them through the platform in the near future.

Standards and product certification ensures that products are safe, reliable, and of good quality. Certification adds credibility to the product and is typically a requirement to reach international markets. The **Ghana Standards Authority (GSA)** issues standards based upon the Codex Alimentarius for food products. GSA has developed about 500 Ghana standards and has adopted more than 2,000 international standards. The **Food and Drugs Authority (FDA)** regulates and certifies food and other products with public health effects. Foodstuffs imported into Ghana are considered high-risk goods and therefore must undergo testing by the GSA and the FDA.

The GSA and the FDA both certify food products. There is a clear overlap in the mandate of the two authorities, and the dual testing and inspections add time and cost to trade in food products. With the support of the TRAQUE program (described below), the MOTI is trying to establish a quality policy to delineate the responsibilities between GSA and FDA. However, the GSA reports to MOTI and the FDA reports to the **Ministry of Health**, and the two often conflict regarding regulation responsibilities, which has made it difficult to advance the drafting and adoption of the quality policy.

PPRSD is tasked with (1) issuing phytosanitary permits for import and export of plants and plant products; (2) inspecting and conducting pest surveillance on plants under cultivation, in storage, or in transit; (3) carry out disinfestation or disinfection of plants or plant products destined for international markets to meet phytosanitary standards; (4) conducting pest risk analysis; and (5) disseminating information about quarantine requirements to prevent and control pests.

The **Plant Quarantine Division**, one of the four divisions under the PPRSD, has staff posted at border crossings. While border posts with more traffic of plants and plant products tend to have an agent from the Quarantine division, not all border posts do. For example, in the northern region there are four border posts, but only two of them are staffed by a Quarantine inspector. In the northern region, the PPRSD conducts a pest risk assessment on plants and plant products destined for export and issues a

[158] Abidjan-Lagos Corridor Organization, Abidjan –Lagos Trade and Transport Facilitation Project (ALTTFP), Year 1 Report, 2011.

permit to travel to the border, where the PPRSD border agents inspect outgoing plants or plant products and issues phytosanitary certificates for export. However, inspections often consist of visual inspection, and, according to the PPRSD headquarters, many border posts lack testing kits.

The PPRSD office in Tema is also clearly under-resourced; the one computer that does exist cannot connect to the GCNet and there is limited testing equipment and holding space for quarantine. Inspections occur in warehouses typically just outside the port before issuance of handwritten phytosanitary certificates. PPRSD agents in Tema do not appear to follow any official risk assessment plan. Known importers that import the same products with no prior pest issues get a lighter inspection.

In 2015, PPRSD's **Crop Pest and Disease Management Unit** compiled a list of pests for circulation to regional staff. The Unit has collaborated with research institutions to review and update the list with pest and plant diseases. The PPRSD office in the northern region had the list, but the office in the Port of Tema seemed unaware of it. In addition, the list is not available on MOFA's website or uploaded to the IPPC website. However, in February 2017, PPRSD did post a report to the IPPC website about all armyworm (*Spodoptera frugiperda*),[159] which is a recently discovered pest in Ghana. When a pest is detected, a fact sheet containing guidelines about how to identify it, what type of crop damage it inflicts, and how to manage outbreaks is sent to district extension officers. PPRSD, in partnership with the intergovernmental Centre for Agriculture and Bioscience International (CABI), has trained extension agents in 49 districts in five regions in basic pest diagnosis and remedies, so they could become plant doctors. A plant doctor photographs the affected plants and shares it with the regional PPRSD, which analyzes the data. The initiative used to broadcast the plant doctors' arrival in a particular village over local radio, which reportedly was effective, but because of limited funds such outreach is now limited.

The European Union has banned the import of sweet and chili peppers, gourds, and eggplants from Ghana, because of shortcomings in phytosanitary control. MOFA has created a taskforce that invites EU audit teams to pinpoint the issue. According to stakeholders engaged in the taskforce, the key issue is not related to pests in the produce; PRSD staff at the Port of Tema does not fill out the phytosanitary certificates correctly. The staff has recently been trained on the correct procedures, but PPRSD has rotated the trained staff out of Tema. Members of the taskforce have unsuccessfully brought up this issue with MOFA; their strategy is now to raise the issue to a higher political level to encourage dialogue between MOTI and MOFA.

SUPPORTING INSTITUTIONS

To become a licensed custom broker or freight forwarders by the GRA, individuals have to be a member in good standing of the **Ghana Institute of Freight Forwarders (GIFF)**, the **Freight-forwarders Association of Ghana (FFAG)**, or the **Customs Brokers Association of Ghana (CUBAG)**. According to the LPI Index, a high proportion of respondents are satisfied or very satisfied with the competence and quality of Ghana's freight forwarders (86 percent) and custom brokers (79 percent).

In Tema, Accra, and surroundings there is a sufficient supply of qualified logistics providers. However, in the Northern, Upper Eastern, and Upper Western regions, there are as yet no

Key Supporting Institutions

- Ghana Institute of Freight Forwarders (GIFF)
- Freight-forwarders Association of Ghana (FFAG)
- Customs Brokers Association of Ghana (CUBAG)
- Donor-supported trade facilitation programs
- Ghana National Chamber of Commerce
- Federation of Associations of Ghanaian Exporters (FAGE)
- Ghana Root Crops and Tubers Export Union (GROCTEU)
- Association of Ghana Industries (AGI)
- Sea-Freight Pineapple Exporters of Ghana (SPEG)

[159] https://www.ippc.int/en/countries/ghana/pestreports/2017/02/report-on-fall-armyworm-spodoptera-frugiperda/

freight forwarders or custom brokers at all. While the volume of trade is significantly lower than in Tema, the demand for freight forwarding services is lower. However, according to stakeholders interviewed for this report, there is an untapped market in the north for logistics professionals, but the GRA's requirements for licensing freight forwarders (that is, to be a Ghanaian national and have at least two years' work experience in a freight forwarding business or 10 years for those without a high school certificate) are impractical. And for people living in the north—where there are no existing logistics businesses to work for—this work experience requirement is unfeasible. Yet, in Tamale, with the support of the GRA and some creative work-around solutions, an entrepreneur is about to establish a freight forwarding company to serve the northern regions.

There are several donor-funded trade facilitation programs in Ghana. The **West Africa Trade Hub (WATH)** is supporting trade facilitation and implementation of the ECOWAS Common External Tariff Agreement, especially as it relates to a selected group of agricultural value chains. Originally started under WATH, the **Borderless Alliance** is a regional platform for the public and the private sector involved in transportation in West Africa. Borderless Alliance is perhaps most famous for its verification trips, which track the number of checkpoints, time, and illicit payments along the major regional trade corridors. The Alliance is currently implementing a program on transporting food products across regional borders. Beside road harassment, harmonization of the ECOWAS importation requirements is the major issue the program works to address, particularly the certificate of origin that some countries continue to require despite it having been abolished.

Two donor-funded programs are currently working with the MOTI to strengthen quality control in the country to improve export competitiveness. The **Trade Related Assistance and Quality Enabling Programme (TRAQUE)**, embedded in MOTI, provides trade facilitation capacity building to the Ministry and supports the upgrade of the national quality and standards infrastructure. TRAQUE has trained and supplied 28 laboratories in Ghana with equipment, including the Customs Laboratory, and is working with the government to address the EU import ban on selected vegetables. TRAQUE will end in July 2017. To improve export competitiveness, the **United Nations Industrial Development Organization (UNIDO)** is collaborating with MOTI to implement a Trade Capacity Building Project aimed at strengthening Ghana's conformity assessment services, including accreditation, standardization, calibration, and metrology. The project has refurbished laboratories and strengthened the capacity of key laboratories, including Food and Drugs Authority and the Ghana Standards Authority laboratories. The project is also working with enterprises to adopt international food safety practices and certification to export to the international market. The program focuses on the cocoa, fish, fruit, and wood value chains.

Stakeholders confirmed that there have been some issues at PPRSD with the distribution of lab equipment and putting it to use. Boxes have supposedly remained unopened for a long time and PPRSD in Tema Port has still not received its equipment. The causes of these delays were not apparent, and the issue deserves further investigation.

To support the implementation of Ghana's commitments under the WTO's Trade Facilitation Agreement, the **United Nations Conference on Trade and Development (UNCTAD)**, is leading a series of intensive capacity-building and implementation workshops for members of the National Trade Facilitation Committee. During the course of this assessment, UNCTAD was conducting a three-day workshop to develop a roadmap for facilitation reforms and for identifying measurable performance indicators. This workshop was the fourth event in the series and has, according to government officials participating in the workshop, helped bring together representatives from different ministries and agencies to coordinate activities and identify areas where additional support is needed.

Ghana has a well-established network of industry organizations, including the **Ghana National Chamber of Commerce**, the **Global Shea Alliance** and the **African Cashew Alliance**. The **Federation of Associations of Ghanaian Exporters (FAGE)**, a large umbrella organization for exporters of non-traditional products, brings exporters to international trade fairs and assists them to become competitive on the international market. In particular, FAGE conducts training around the adoption of international standards and certification for agricultural production and processing, including GlobalG.A.P, fair trade, and organic and hazard analysis and critical control points (HACCP). **The Ghana Root Crops and Tubers Export Union (GROCTEU)** is, among many other things, collaborating with international research organizations to develop jam seeds and seedlings that produce traceable and standardized-sized jams that are more palatable to the European and North American markets than the current, very large jams produced in Ghana. GROCTEU has also entered into a partnership with MOTI and Customs to oversee the packaging of jams for export (primarily to the African diaspora market in Europe and the US) in Tema Port. Previously, jams were a prime target for trafficking in narcotics, which caused rejections and a poor reputation in destination markets. However, the collaboration between the industry organization and the government, coupled with scanning of all products, has curbed the issue.

The **Association of Ghana Industries (AGI)** represents industry interests on a number of government boards and public institutional committees, such as the Ghana Single Window Steering Committee. AGI advocates for policies and practices that foster international competitiveness and reduce the cost of doing business. With four regional offices in addition to Accra and Tema, AGI organizes workshops, networking events, a well-attended annual industry award ceremony, and opportunities for members to interact with government officials. Because many members are engaged in cross-border trade, AGI organizes trade fairs in Ghana and exhibitions in the ECOWAS regions. AGI is also producing or co-producing research reports, such as the SME Competitiveness Survey,[160] and conducting quarterly Business Barometer surveys of their members' experience doing business in Ghana. With up-to-date and relevant information about which policy constraints their members are encountering, AGI has an effective tool to advocate for their members' interests.

> The AGI Business Barometer for the third quarter of 2016 showed that businesses have a very high level of confidence in Ghana's business environment (99% of respondents), believe that they performed the same or better than the previous quarter (76%), and had a positive outlook for the future. However, the high cost of utilities, caused by high energy levies, remains a top challenge (53%), followed by delayed payments (33%), access to credit (28%), multiplicity of taxes (27%), and unfavorable foreign exchange rates (23%).

The **Sea-Freight Pineapple Exporters of Ghana (SPEG)** is a well-run industry association that organizes the cold-chain and transportation of fresh pineapples by sea to the European market. Formed with support from USAID in 1994, the organization now finances its own operations and serves about 15 pineapple exporters. Although SPEG provides some market linkages and participates in international trade fairs, the organization mainly offers quality control and logistics services. With the support of donors and MOFA, SPEG has ensured that all of its members are GlobalGAP-certified, and each year organizes refresher training courses prior to the annual GlobalGAP audit. SPEG has a contract with the African Express Line, which brings a cold-chain sea-freight vessel to the port of Tema twice a week. SPEG communicates with its members, coordinates container space, and books the space on the vessels. In Tema Port, SPEG has a refurbished, modern, temperature-controlled packing house, of which it is part owner (SPEG owns 40 percent and 60 percent is owned by a European produce company). SPEG finds the export process easy and reliable and has an agreement with PPRSD to inspect the pineapples in the packing house to preserve the cold chain.

While pineapple is a priority product under the National Export Strategy for the Non-traditional Sector, it is SPEG's strong organizational and logistical capacity that has propelled the sector in Ghana. SPEG has a strong collaboration with the government and has successfully negotiated (1) a tax-exemption for packaging material for pineapples and (2) Expedited scanning and handling (maximum 2 hours) of refrigerated containers with pineapples in the port to avoid postharvest losses. SPEG has also educated

[160] International Trade Centre (2016). SME Competitiveness in Ghana: Alliances for Action. ITC, Geneva.

the Police about the pineapple trade and thereby reduced road harassment during transportation to the port. By providing exporters regular and reliable sea-freight at one-quarter of the cost of airfreight, seamless export procedures, and an unbroken cold-chain, members of SPEG have no qualms about paying SPEG for its services. Members pay US$500 per year and €150 per container. Buyers in Europe are guaranteed regular delivery of high quality, certified products.

SOCIAL DYNAMICS

Ghana's **political stability**, good governance, and business enabling environment policy reforms combine to make the country one of the better locations for investment in Sub-Saharan Africa. Several stakeholders our assessment team interviewed noted that the change in administration following the recent election had not affected their business or investment decisions. As one multinational agro-processing business noted: "We are established in 24 countries in Sub-Saharan Africa, and Ghana comes out ahead. A few months ago, there was a change in government, but both parties are pro-business, which makes it predictable and stable for us to do business here. Unlike in many other countries, here we can develop medium-term plans. Where do we want to be five years from now? Few African countries have an environment like that, so that's a big plus for Ghana."

Corruption in ports, border crossings, and checkpoints is a problem across the globe given the high values of transactions, the need for expedited services, and some importers' desire to evade taxes, fees, or other charges. Although corruption persists in Ghana, it is not as rampant as in some other countries on the continent. According to the Transparency International Corruption Perception Index 2016, Ghana (70th out of 176 countries measured) ranks higher than all neighboring countries, including Côte d'Ivoire (108th), Togo (116th), Benin (95th) and Nigeria (136th). With the introduction of Ghana Single Window platform, and the fact that all charges, taxes, and fees are paid to the GRA electronically via banks, the opportunities for corrupt practices have been reduced. Importers, exporters, and logistics professionals perceive that there have been huge improvements following the expansion of the online platform, new regulations, improved procedures, and infrastructure (see the table). Although 31 percent of participants in the LPI survey said that they often or always experience solicitations for informal payments during the course of importation or exportation, 38 percent said that such requests have reduced.

Perceived improvements in the logistics environment, 2013–2016	
Customs clearance procedure	100%
Clearance procedures of other border-related agencies	54%
Trade and transport infrastructure	77%
ICT infrastructure	92%
Regulations related to logistics	100%
Source: LPI 2016	

Nevertheless, some importers or exporters might not see another option than paying a bribe, fearing that if they refuse, it could cost them dearly. And incidents continue to happen. For instance, one haulage and transport association shared that in 2016, 120 Ghanaian trucks were stopped and remained at the border between Ghana and Burkina Faso for three months as the truckers refused to pay a 200,000 CFA[161] truck fee for a loading note, a fee that had been abolished according to the newly adopted ECOWAS Trade Liberalization Scheme. Eventually, the haulage and transport association traveled to the border with a high-level MOTI official to negotiate the release of the trucks. The trucks were released without payments, and it is possible that the customs service of Burkina Faso was unaware that loading notes were no longer required. However, considering the delivery delays and considerable losses suffered, it is remarkable that

[161] CFA is the official symbol for the West African Franc, legal tender in Burkina Faso. 200,000 CFA equal approximately US$360.

the truck owners did not order their drivers to negotiate a side arrangement with the customs officials to release the trucks.

Customs officials in the Northern Region described significant dissatisfaction with the **human resources practices within Customs**. Customs officers are supposed to rotate between postings every four years, but some officers have been posted in the Northern region for 12–15 years. These officers live far away from their families and feel their advancement opportunities are reduced. Work morale is low and alcoholism is common in the ranks. In the words of one officer, "Loneliness can kill." Officers posted outside of the regional capital of Tamale face particularly difficult conditions: one post on the border with Togo has no water or electricity, and the custom officials live in a tent. One cited reason for the lack of rotations was that officers are supposed to get paid three months' salary as a moving allowance, but because the Customs Division cannot afford that, officers do not get rotated. Officials at Customs headquarters in Accra recognized the difficulties officers endure in remote outposts. However, those officials at headquarters also remarked that certain areas, such as the port and the airport, are known to be "more lucrative" (presumably more opportunity for graft)—thus officers want to get reposted from "dry areas."

Road harassment and unauthorized checkpoints are a well-known problem in the entire West Africa region. However, there are at least two parties to any informal payment transaction, and both parties might have something to gain from the transaction. For instance, regional livestock traders approached Borderless Alliance about significant recurring road harassment from Kumasi going north. Borderless Alliance invited the Police, the GRA, and other government institutions to participate in a fact-finding mission along the trade corridor, which was followed by a stakeholder meeting organized by the Police. The meeting resulted in a proposal to create a one-stop livestock inspection station at the Paga border post between Burkina Faso and Ghana. However, the livestock traders backed out of the initiative, most likely because it was more lucrative for them to overload the trucks with livestock and pay the bribes along the way than it would have been for them to adhere to the regulated loading limits.

Ghana enjoys a **vibrant and free press**. Ghana is the second-highest ranking country on the African continent in the 2016 World Press Freedom Index (26th of 180 countries worldwide).[162] There are about 15 newspapers in the country, which one importer noted "keep a good check on the government, and that's good for the business climate here." For instance, the *Ghana Guardian* recently published an investigative article about corruption in the Port of Tema.[163] The Ghana Agricultural and Rural Development Journalists Association, a network of 80 journalists, conducts investigative journalism, such as tracking the allocations and spending of the MOFA budget.

Women occupy an important role as cross-border traders in Ghana. Like elsewhere in Sub-Saharan Africa, many women engage in informal trade, and thus their economic contribution is underreported and their specific challenges receive limited attention. Women have less access to assets and capital and have therefore less power to negotiate transportation prices or payments at checkpoints. To be able to transport their goods, one transportation and trucker association noted that it is common for women traders to engage in sexual transactions with truck drivers; the women get to transport their goods at a reduced price or for free in exchange for sexual favors.

As discussed throughout this chapter, a number of important regulatory changes have taken place in Ghana and at the regional ECOWAS level in recent years. There are several initiatives to train traders on cross-border procedures, but women are under-represented in those activities. Moreover, women have less access to information overall, because men are better educated and have greater access to radio,

[162] Namibia is ranked 17th; the USA is ranked 41st. https://rsf.org/en/ranking_table.
[163] *Ghana Guardian*, Corruption at Tema Port: Government loses US$ 8.3m monthly. April 11, 2017. Available at http://www.ghanaguardian.com/corruption-tema-port-government-loses-us-8-3m-monthly/.

television, and print media.[164] According to the Afrobarometer survey, women in Ghana hold fewer leadership positions in civic society and trade associations and have less access to networking and training opportunities than men.[165]

Although women are under-represented in mainstream trade associations, there are industry associations in women-dominated industries, such as the Global Shea Alliance for the shea industry, which provide members with valuable training and information on traceability, quality standards, and market linkages. In addition, the Ghana Association of Women Entrepreneurs (GAWE) provides women business owners with training, networking opportunities, and participation in trade shows.

[164] According to Ghana's Demographics and Health Survey (DHS) 2014, 19% of women and 9% of men have never attended school; 35% of men, but only 22% of women, have a secondary or higher education; 52% of women and 78% of men age 15–49 listen to the radio at least once a week; and 51% of women and 66% of men watch television at least once a week. Only 9% of women and 17% of men reported reading a newspaper or magazine at least once a week.

[165] A little bit less than 20% of women and men are members of a community based organization or association, while 6% of men and only 1% of women hold leadership positions. http://afrobarometer.org/online-data-analysis/analyse-online

ENFORCING CONTRACTS

Predictable enforcement of commercial contracts is necessary for a vibrant business community to develop. Commercial contracts, whether written or oral, allow businesses to make and accept offers, arrange for future delivery times, and agree on terms of payments. Cash-and-carry transactions, such as the sale of vegetables to consumers at a market, is common for smaller transactions and involve very limited risk. However, larger and more complex transactions involving delayed obligations entail more risks, and therefore require a robust system for contract enforcement and recovery.

Ghana has an adequate legal framework to support commercial transactions and has in the last decade adopted regulations to establish commercial courts and an alternative dispute resolution system. Although court reforms have improved the judicial system in recent years, automation, case management, and court statistics need to continue improving. Moreover, corruption scandals have eroded the public's trust in the judiciary. Yet, Ghana has an adequate commercial dispute resolution system to build on; the commercial courts are perceived to function relatively well, and there are options for alternative dispute resolution inside and outside the court system. While there are well-established organizations and services in place to support contract enforcement, the legal education system is impeding the growth of the legal service market.

Commercial transactions between agri-businesses in Ghana are founded on trust that the other party will live up to his or her part of the deal. When one party is unable to deliver in good faith—for instance, if part of a crop became infested by pests—the parties will renegotiate the contract to accommodate the unforeseen circumstances. However, when contracts are broken in bad faith—for instance, if an outgrower engages engage in side-selling—the aggrieved party can terminate the contract and take legal action. But often, the cost and time of legal proceedings are too high to justify court actions for smaller claims. Yet, for larger aggregators and buyers with numerous suppliers, although the cost of taking legal action for a small claim might cost more than the disputed claim, taking legal action sets a fairly public example for other suppliers to note. Thus, as a practical matter, the court system serves as the last resort and a stern warning to others to comply with to their obligations.

Women, especially in the northern parts of the country, are less likely to use the courts, which limits their ability to take risks and expand their market reach.

According to the World Bank's Doing Business Index, Ghana ranks 114th out of 189 economies in enforcing contracts. However, the Doing Business Index measures the time, cost, and process for pursuing a small claim in the district court, rather than a claim in the commercial court, so the ranking may be off the mark. The World Justice Project's Rule of Law Index, which through household and expert surveys measure the experience of the rule of law worldwide, ranks Ghana 44th out of 113 economies. Ghana also performs relatively well with regard to civil justice (41/113) and regulatory enforcement (39/114), but not as well with regard to corruption (76/113).

LEGAL FRAMEWORK

According to the **Constitution of 1992**, Ghana has a dual legal system—common law and customary law. Customary law is the body of rules which by custom are applicable to particular communities in Ghana. The Constitution establishes two sets of courts: the higher courts, consisting of the superior courts, the Supreme Court, the Court of Appeal and the High Courts, and the lower courts that handle smaller claims, the Circuit Courts and the District Courts.

The Ghanaian legal system is based on British common law. The **Contracts Act, 1960 (Act 25)** is short and contains few substantive legislative principles. Thus, key principles such as freedom of contract, offer and an acceptance, contracts entered under misrepresentation, duress or undue influence, *force majeure* or remedies for breach of contract are not codified in the Act. Instead, as one lawyer explained, the Contract Act is an amendment of the UK common law of contracts as reflected in British court decisions and adopted by Ghanaian courts. Contract law taught at the universities, and contract law books found in libraries at law firms, are primarily British text books. The Contract Act spells out areas where the Ghanaian contract regime departs from British law, such as privity of contract in relation to consideration, or areas where the legislature wanted to clarify the law, such as what types of contracts have to be in writing. Like case law in general, the contract law regime in Ghana is not as accessible for non-lawyers as a clearly written law codifying existing legal praxis—that is, how the legal principles are actually and practically applied. Whether the short law is "a good thing or not, is debatable" mused one lawyer, but the legal community is comfortable with the existing contract regime, which covers all elements and principles of contracts.

Key Laws and Regulations

- Constitution of Ghana (1992)
- British common law of contracts
- Contracts Act, 1960 (Act 25)
- Sale of Goods Act, 1962 (Act 137)
- Court Act, 1993 (Act 459)
- High Court (Civil Procedures) Rules, 2004 (C.I. 47) Order 58
- Civil proceedings (Fees and Allowances) (Amendment) Rules, 2014 (C.I. 86)
- Alternative Dispute Resolution Act, 2010 (Act 798)
- United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards
- Legal Profession Act, 1960 (Act 32)
- Cooperative Societies Decree, 1968 (N.L.C.D) and regulations
- Ghana Cocoa Board Act, 1984 (PNDCL 81)

The **Sale of Goods Act, 1962 (Act 137)** is well-crafted and organized, easy to understand, and its content is consistent with international good practices. The Act addresses the specific needs of transacting in agricultural goods; "goods" are defined to include crops on the field or crops not yet grown and prices can be fixed at a later stage. Contracts of sale can relate to specific and identified goods, or uncertain goods, such as a certain quantity and quality of canned tomatoes. Moreover, sales contracts can be concluded about goods not yet grown, such as in the case of outgrower schemes.

Freedom of contract is the guiding principle for the Act, and the act is primarily regulating instances where the parties have not agreed upon the terms of the contract, such as the time, means or place of delivery. Sale contracts can be written or oral. The Act allows parties to enter into a contract without specifying the price at the time of concluding the contract. Instead, the parties can identify a specific market to inform the price on a specific future date.

There are considerable risks involved in the trade of agricultural goods; during production, processing, storage and in transportation there are risks for production losses, postharvest losses, or delayed delivery. The Act provides clear assignment of risk, which is paramount for contracts relating to agricultural goods. In accordance with the principle of freedom of contracts, the risk passes from the seller to the buyer when the parties intend it to (via by their contract), which courts of law are instructed to honor. In the absence of an agreement assigning risk, the risk passes from the seller to the buyer when the property rights pass to the buyer. If delivery is delayed, the goods are at the risk of the party at fault.

Under the Sales of Goods Act, the buyer has the right to reject goods that, do not conform (not in a trivial nature), with the terms of the contract, and has the right to compensation for damages caused by non-delivery. An unpaid seller has the right to withhold property, unless the seller agreed to deliver the goods before payment. However, if the buyer does not pay for perishable goods in a reasonable time, the seller may resell the perishable goods.

The **Court Act, 1993 (Act 459)** mandates that civil courts promote reconciliation and facilitate the settlement of disputes in an amicable manner through a court-connected alternative dispute resolution

(CCADR). Unlike CCADR in many other countries, criminal offenses that do not amount to felony charges may also be settled through reconciliation (Section 73).

High Court (Civil Procedures) Rules, 2004 (C.I. 47) Order 58 establishes the Commercial Division of the High Court, often referred to as the Commercial Court. The Commercial Court has jurisdiction over the formation or governance of businesses, contract disputes, international trade and transportation, banking and financial services, and taxes, as well as restructuring, insolvency, and bankruptcy.

The major procedural difference between the Commercial Court and the regular High Court is that a pre-trial conference, a form of court-connected arbitration, is mandatory. The reason for the pre-trial conferences is two-fold—it presents an opportunity to preserve business relationships that can be salvaged, and it is intended to speed up the court process. To keep commercial processes on schedule, Order 58 provides specific time frames for each of the different steps. For instance, the Commercial Court Administrator has 3 days to assign a judge to a pre-trial settlement conference; the pre-trial conference must take place within 30 days, which may be extended for an additional 30 days if there is a reasonable prospect of settlement. During the pre-trial process, the parties may agree to refer the process to an alternative dispute resolution (ADR) process outside of the court process. Settled disputes are registered as judgments by the Commercial Court. If no settlement can be reached, the pre-trial judge directs the parties back to the Administrator who assigns a different judge to the case for a full hearing. The judgment should be delivered no later than 6 weeks after the close of the case. According to one litigation lawyer, decisions are typically rendered in 4–6 weeks.

High Court (Civil Procedures) Rules, 2004 (C.I 47) Order 25 provides special rules for time-sensitive disputes, such as disputes over fresh agriculture produce. The court may order an injunction—an order to one of the parties to do something or refrain from doing something, such as not removing goods from temperature-controlled storage. The court may also order the sale of perishable goods that are in dispute. In that case, the judge assigns a receiver, often the Court Registrar, to engage an auctioneer. One court registrar told us that the disposal of perishable goods in dispute can be accomplished in one day. Moreover, the court can order an early trial for the part of any dispute that is time-sensitive, such as disputes over perishable goods; the other merits of the dispute can be heard at a later time.

Civil Proceedings (Fees and Allowances) (Amendment) Rules, 2014 (C.I. 86) regulates court fees. The fee for the High Court Commercial Division is double the fee of the High Court. For a claim valued between GH¢100,000–500,000 (which is one of the more common claimed values according to a court clerk), the writ of summons costs GH¢2,000 in the commercial court, and GH¢1,000 in the High Court. There are a number of other chargers during the court process, but they are mostly manageable. However, to execute on a decision, there are lots of charges—three pages of detailed charges, to be exact. Though most of the charges are small, such as photo copy charges per page, the total can add up. In addition, most charges require a separate payment, which adds some time and inconvenience to the process.

The **Alternative Dispute Resolution Act, 2010 (Act 798)** regulates arbitration, mediation, and customary adjudication. Parts of the Alternative Dispute Resolution (ADR) Act contains standards found in UNCITRAL[166] Model Law on International Commercial Arbitration. For instance, the ADR Act provides that arbitration agreements are irrevocable, that courts should refer matters to arbitration if the claims are covered by an arbitration agreement, and that the arbitrators have the power to determine their own jurisdiction. However, the ADR Act has some unique Ghanaian traits, which gives the courts greater supervisory powers over the arbitration process. Although the arbitrators can determine their own jurisdiction, parties may apply to the High Court to determine the arbitrator's jurisdiction (Article 26(1)). Moreover, the High Court may determine any question of law that affects the rights of the other party

[166] UNCITRAL is the acronym for the United Nations Commission on International Trade Law.

(Article 40(1)). Thus, the High Court can override decisions of the arbitrators if the court is not satisfied with their interpretation of the law, rendering the ADR system less independent.[167]

With the consent of the parties, the courts may, according to the ADR Act, refer matters to mediation or customary arbitration. However, a party aggrieved by a customary arbitration award may apply to the court to set aside the award if it can be shown that the award was "a miscarriage of justice" or "in contradiction with the known customs of the area concerned" (Article 112). Arbitration awards and customary arbitration awards are enforceable by the High Court.

Ghana has ratified the **United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards.** Ghana has not ratified the United Nations Convention on Contracts for the International Sale of Goods (Vienna, 1980).

The **Legal Profession Act, 1960 (Act 32)** regulates legal education and the legal profession in Ghana. The Act established the Ghana School of Law, which is governed by the General Legal Council (GLC) and its subsidiary body the Board of Legal Education. The Ghana School of Law is the sole law school in the country. The General Legal Council is the regulatory body for the legal profession and professional conduct. The GLC is made up of members from the bar, the judiciary, and legal academia.

Producer organizations enable small scale farmers to aggregate their production, access market linkages, purchase agricultural inputs wholesale, or participate in contract farming. The legal framework for producer organizations is found in the **Cooperative Societies Decree, 1968 (N.L.C.D)** and the **Co-operative Societies Regulations, 1968 (L.I. 604).** The Decree outlines the registration requirements and the duties and privileges of registered cooperatives. There is no minimal capital requirement to establish a producer organization, which is a positive since capital requirements—especially for rural farmers' cooperatives—can be an obstacle for formation. The Decree primarily targets the creation of local, agricultural cooperatives, which is reflected in the Decree's membership criteria; membership is open to Ghanaians or foreign nationals as long as they reside or occupy land within the cooperative's area of operation. However, membership is not open to incorporated companies. Ownership of land is not required, but if the purpose of the cooperative is farming, members need to have access to land. Membership is not restricted to one person per household, which allows both husband and wife (or wives) to become members. There are no legal restrictions for women to become members or take leadership roles in a cooperative. Cooperatives have the independence to decide how much dividend to pay their members or pay dividend in shares.

Unlike other crops, the sale of cocoa is heavily regulated and controlled by the government, thus restricting the freedom of contracts. Established by the **Ghana Cocoa Board Act, 1984 (PNDCL 81)**, the Ghana Cocoa Board (COCOBOD) regulates and engages in research, providing inputs, extension services, quality control, price setting, and marketing in the cocoa trade. To purchase cocoa from farmers, a company has to be licensed by the COCOBOD. There are extensive requirements to become a licensed buying company (LBC), which only bigger, established businesses can meet. LBCs have to reapply for their license yearly, and there are currently about 20 LBCs in the country. In addition to the LBCs, the parastatal Cocoa Marketing Company (CMC) also purchases cocoa from farmers. According to the Act, a price floor is to be fixed for the price paid to producers. Every year, the Producer Price Review Committee (PPRC), composed of representatives from the government, COCOBOD, farmers, the LBCs, and academia determine the price floor for the crop year. LBCs are allowed to pay more than the price floor, but in practice, this rarely if ever happens. The PPRC also fixes the price that LBCs receive when they sell the cocoa to the CMC.

[167] For further discussion, see, Paul F. Kirgis, Status and Contract in an Emerging Democracy: The Evolution of Dispute Resolution in Ghana, 16 Cardozo Journal of Conflict Resolution 101 (2014). Available at: http://scholarship.law.umt.edu/faculty_lawreviews/106

The CMC is the primary exporter of cocoa. The World Bank's Enabling the Business of Agriculture Index (EBA) refers to Ghana Cocoa Board Export of Cocoa Regulations (19 April 2004). However, according to the Ghanaian Parliament and the Assembly Press (the government printer) those regulations were never passed.[168]

There is no centralized, open-access repository for laws, acts, regulations, decrees, or policies in Ghana. Some Ministries and agencies post a somewhat random selection of laws online. For instance, Customs has posted a number of laws, but not the Customs Act 2015 (Act 891), which is the main law governing Customs. In Accra, the Ghana Publishing Company Ltd sells hard copies of acts and regulations; however, similar offices outside Accra do not appear to exist. One lawyer in Tamale noted that the presiding judge does not necessarily have the relevant law in hand to hear a case, in which case the lawyer brings the law to the judge. Law offices access legal resources through an online, fee-based service. Thus, **access to laws** remains an issue in Ghana.

IMPLEMENTING INSTITUTIONS

The court system in Ghana is made up of the **Supreme Court**, the **Court of Appeal**, which is the appellate court for the **High Courts** for civil cases from the **Circuit Courts**. Decisions from the **District Courts**, which are the lowest courts, are appealed to the High Courts.

Opened in 2015, the large, modern Law Court Complex houses all the High Courts in Accra. In addition to 43 courtrooms, including 10 commercial court rooms, the Court Complex has a bank branch for court-related payments, administrative offices, bailiffs' offices, meeting and conference rooms, and dedicated alternative dispute resolution rooms. When this assessment team visited the Court Complex it was buzzing with activity; it has been estimated that 2,000 people enter and exit the building every day.[169] Close to 300 professionals work in the Court Complex, one-fifth of them in the commercial court.

Key Implementing Institutions

- Supreme Court
- Court of Appeal
- High Courts
- District Courts
- Circuit Courts
- Commercial Court
- Judicial Service of Ghana
- Court-Connected Alternative Dispute Resolution (CCADR) Program
- Judicial Training Institute (JTI)
- Public Bailiffs
- Ministry of Employment and Labour Relations, Department of Cooperatives (DOC)

Introduced in 2005, the Commercial Division of the High Court, commonly referred to as the **Commercial Court,** is a specialized division which deals exclusively with commercial disputes. To build specialized competency, judges in the Commercial Division are not rotated to other divisions of the High Court. With a view toward speed up the handling of commercial cases, the Commercial Division has more administrative autonomy than other courts; it has its own court administrator and court registrars, and at the Court Complex in Accra, the Commercial Division has separate filing and registration offices. In 2014, there were 20 Commercial Divisions in 7 out of the country's 10 regions.[170]

According to the legal professionals interviewed for this report, that the Commercial Division has better case management than the regular High Court. Lawyers have higher confidence in the Commercial Court, and they believe its judges know the substance of commercial law better. A study tracking the caseload confirmed this view, and found that the Commercial Court, because of its more stringent procedural

[168] We would like to thank the law firm Kimathi and partners for researching this issue.
[169] The Judicial Service of Ghana, Annual Report 2015/2016. 2016. https://www.judicial.gov.gh/annualrep.pdf
[170] The Judicial Service of Ghana, Annual Report 2013/2014. 2014. https://s3.amazonaws.com/ndpc-static/CACHES/PUBLICATIONS/2016/02/27/Judicial+Service_APR_2014.pdf

rules, has a higher disposition rate than the other courts, including the regular High Court and the Land Court.[171]

In the legal community, there are diverging opinions about the usefulness of the mandatory pre-trials in Commercial Court. Several lawyers we spoke with found the mandatory, but not public, pre-trial conferences to be effective to push parties to settle. However, others found that for parties that were adamant in their positions, arbitration was a pointless exercise that only extended the court process, and could even be used as a delay tactic. According to the Judicial Service's annual report 2015/2016, 34 percent of the 1,452 cases in the Commercial Divisions were settled during pre-trial in 2015.

Court statistics are useful to gage the caseload and disposal rates of cases to assess where there are backlogs. Court statistics also illustrate what type of cases courts are used for and who uses the courts—and by extension what type of cases do not reach court. The **Judicial Service of Ghana** publishes an annual report, which presents some court statistics. However, the analysis is limited and the data grouped and presented in such a way that it is unfortunately not very useful. For instance, data from the Commercial Court is bundled with other specialized courts, rendering the information less useful.[172]

Moreover, a collaborative study from 2010 by the World Bank and the Judicial Service of Ghana found that existing statistics revealed "numerous errors" and that the annual caseloads were over-estimated as "the statistics in the annual reports were found to be inflated."[173] The study also found that record-keeping in courts have improved but noted that, although the completeness of the dockets varies by court and type of cases, many dockets were missing. The introduction and expansion of an electronic case management system should improve the tracking of dockets and improve the conditions for generating reliable statistics.

The good news is that an electronic case management system is being introduced at the Law Court Complex in Accra. The case management system will allow court personnel to manage case details and hearings, as well as track submitted exhibits and documents. The system should also be able to blindly assign judges to pre-trial conferences and trials, but in practice the Court Registrar manually assigns judges. This is arguably a defect; to minimize the risk that people will try to influence what judge they get, the assignment system should be automated.

The Commercial Court in Tamale uses a manual case management system. The court received laptops in 2010 to start using e-filing, but according to a court clerk, the system was never connected. The Court Registrar in Tamale is manually assigning cases, but since there is currently only one commercial judge (instead of two, which was previously the case), the same judge hears all pre-trial conferences and trials.

Circuit Courts have jurisdiction over commercial and civil cases where the value of the claim is GH¢20,000– GH¢50,000. According to the Judicial Service, there are currently 64 Circuit Court judges in the country. The registrar of the Circuit Court in Tamale shared that in most cases, the parties do not employ legal representation, since legal fees would be too expensive for size of claims they bring. Moreover, a court clerk noted that the magistrate is able to hear 8 cases per day, "unless the process gets slowed down by a lawyer."

There is some overlap in the jurisdiction between the Circuit Court and the Commercial Court. The Commercial Court can hear commercial cases for claims exceeding GH¢20,000, and the Circuits Courts can hear cases for claims between GH¢20,000 and GH¢50,000. So, if a claim is at or above GH¢20,000 and at or below GH¢50,000, the plaintiff can choose to use the Circuit Court or the Commercial Court.

[171] Although the data is now somewhat dated, the commercial court disposed of 79% of cases in one year or less; the ordinary High Court 65%; and the Land Court 48%. The World Bank. Use and Users of Courts in Africa: The Case of Ghana's Specialized Courts, 2010.

[172] The Judicial Service of Ghana, Annual Report 2015/2016. 2016

[173] The World Bank. Use and Users of Courts in Africa: The Case of Ghana's Specialized Courts, 2010.

Plaintiffs tend to choose the Circuit Court for smaller claims because the fees are lower. For instance, the writ of summons fee for a claim between GH¢10,000 and GH¢50,000 in Circuit Court is GH¢300, but for the same claim in Commercial Court the fee is GH¢500. Most cases heard in the Commercial Court in Tamale involve claims between GH¢100,000 and GH¢500,000. The Circuit Court in Tamale hears about five to seven commercial cases per month. Interestingly enough, the Circuit Court very rarely hears cases from microfinance institutions or commercial banks, but primarily between individual businessmen.

Each District in the country should have a **District Court**, which in practice functions as a small claims court. In civil cases, the District Courts handle cases where the value of the claim does not exceed GH¢20,000. The fees for the District Court are reasonable. For instance, the highest fee for a writ of summons is GH¢100. The magistrate tends to play a more active, fact-finding role when the parties do not have legal representation.

The District Courts have a large backlog of cases. To staff courts with more magistrates, Judicial Services, in 22008, instituted two different tracks for magistrates: (a) professional magistrates who are traditionally trained lawyers and judges and (2) career magistrates who are not lawyers, but attend a special two-year training program at Ghana School of Law. Career magistrates receive continuing legal education at the Judicial Training Institute, and a leave of absence to attend regular law school. According to a study conducted in 2013, 19 percent of the total 117 career magistrates in the country were women.[174]

To relieve the growing backlog of cases in the lower courts and to provide faster, less adversarial and more affordable access to justice, the Judicial Service created the **Court Connected Alternative Dispute Resolution (CCADR) Program** in 2005. As of 2017, 67 out of the total 333 district and circuit courts offer ADR, where the judge can refer or suggest that parties engage in ADR instead of a court process. In 2016, the court-connected ADR program mediated 1,373 cases and settled 44 percent of them through mediation.[175] Nearly 300 mediators have been trained, and most of them are not lawyers. Instead, the ADR providers come from a wide variety of professions, or are trusted community leaders such as chiefs, elders, or religious leaders. For instance, considering the considerable number of land-related disputes in lower courts, the Judicial Service recently trained 30 surveyors to become court-connected mediators. One study of the CCADR found that litigants had a positive experience of the mediation process, appreciated the opportunity to express themselves, and found that the mediator respected the opinion of both parties.[176] To raise awareness about court-connected ADR, the Judicial Service organizes an annual public awareness week with various public programs, and has even produced a docudrama about court-connected ADR.

The **Judicial Training Institute (JTI)** provides newly appointed judges and magistrates with introductory training. In addition, JTI offers judges, magistrates, and court staff continuing judicial education. In 2015/2016, JTI trained newly appointed Supreme Court justices, Circuit Court justices and magistrates, and held continuing legal education for judges about the 2016 Election (Registration of Voters) Regulation, prior to the general elections.

There are two types of bailiffs in Ghana. **Public bailiffs** are employed by the Judicial Service and execute court orders and can seize assets. **Private bailiffs** operate privately and primarily serve court documents. Given that public bailiffs have law enforcement authority and can enter and seize property, it is surprising that the profession is not regulated. There is no specific law regulating the bailiff profession, no specific or regulated training for public bailiffs, and no professional association for bailiffs. Bailiffs do not need to hold

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[174] Josephine Dawuni, Ghana: the Paradox of Judicial Stagnation, in "Gender and the Judiciary in Africa: From Obscurity to Parity?" edited by Gretchen Bauer, Josephine Dawuni, 2015.

[175] Citifmonline.com 1,373 cases mediated through ADR in 2016, published on March 14, 2017 http://citifmonline.com/2017/03/14/1373-cases-mediated-through-adr-in-2016/

[176] Jacqueline Nolan-Haley & James Kwasi Annor-Ohene, Procedural Justice Beyond Borders: Mediation in Ghana, Harvard Negotiation Law Review. 2014.

a Bachelor in Law (LLB) or be a lawyer—a high school diploma is sufficient. Bailiffs do a one to two-year apprenticeship with a senior bailiff before they can start working as a bailiff. There is no exam at the end of the apprenticeship period. According to one bailiff working in the Commercial Court, the Judicial Service used to announce openings for apprenticeships, but that is no longer the case. Instead, applicants just send a letter of inquiry. Private bailiffs have their own system for apprenticeship and the Judicial Service issues them ID cards as private bailiffs.

The **Department of Co-operatives (DOC)**, organized under the **Ministry of Employment and Labour Relations**, registers and oversees cooperatives. There are an estimated 11,000 registered cooperatives in Ghana, and probably about half of them are active. According to the DOC in Accra, only half of the country's 216 districts are staffed with a cooperative officer. In the Northern region, 13 of the 26 districts have an assigned technical officer, but there are no offices or lodging in the districts, so the cooperative officers are based in Tamale. DOC is severely under-resourced. There are no vehicles or transportation allowances, which makes it challenging for officers to visit their districts, especially in more remote locations with impassable roads. According to two cooperative officers in Tamale, they still visit their districts, but they either pay for the transportation out of their own salary or the cooperatives pay for transportation.

DOC technical officers help new cooperatives get started and support the governance and management of existing cooperatives. The DOC regularly trains cooperatives on conflict resolution, and technical officers mediate disputes that arise within cooperatives. In addition, the DOC supports the development of District Value Chain Committees, which bring together producers, input providers, microfinance organizations, cooperative officers, and agricultural extension officers to promote linkages and marketing activities.

Although there are no statistics on how many women are members or leaders of cooperatives, it is known that women play an active role. In fact, DOC recommends that women become the treasurers of their cooperatives, because women—empirically—have proved more reliable than men in managing finances generally and therefore in managing cooperative finances in particular.

SUPPORTING INSTITUTIONS

Legal education in Ghana consists of an undergraduate degree followed by a graduate, professional degree from **Ghana School of Law**. To practice law, it is required to first obtain an undergraduate bachelor of law (LLB) degree followed by a professional degree and a Qualifying Certificate from Ghana School of Law. Ghana School of Law is the only school in the country that offers the professional degree that allows someone to become a lawyer and practice law in Ghana. Students can earn an LLB degree after three years of university studies. There are five universities in Ghana that offer LLB programs. In addition, students can obtain LLB degrees from other common law jurisdictions outside Ghana. The professional degree program at Ghana School of Law is a two-year program; the first year is course work, and the second year is an internship.

Key Supporting Institutions

- Ghana School of Law
- Ghana Bar Association
- Commercial banks
- Ghana Arbitration Center
- Customary adjudicators
- Consumer Protection Agency (CPA)
- Judicial reform programs
- Business associations
- Outgrower schemes

The Legal Profession Act was passed 70 years ago. Back then, Ghana was at a very different stage of economic development. Today, the demand for legal services is higher, and more students seek to become lawyers and join the growing middle class. However, the rules for admission to the Ghana School of Law, and the general scheme of legal education, have not kept pace. The current legal education system is highly debated in Ghana. There are calls for reform, but other organizations and institutions want to maintain the status quo. The key issue is what some have referred to as the 250:1,000 problem;[177] about 1,000 students graduate every year with an LLB, but the Ghana School of Law admits only about one quarter of them—even though, with an LLB, they all qualify for admission. To deal with the high demand for admission, the Ghana School of Law is administrating written and oral entrance exams.

Some experts we spoke with believe there is a shortage of lawyers in the country, noting that the public administration is understaffed with lawyers and regional tribunals have vacancies. A more targeted assessment is needed to fully investigate if this is the case, and in which sectors and locales the demand for legal services outstrips the supply. What is clear today, however, is that university-trained legal professionals are underutilized. For graduates with an LLB, who are by definition highly educated, here is no pathway, other than via the Ghana School of Law, to work in the legal field. What is also clear is that there is a demand for certain legal services, such as mediation or drafting less complex contracts that could be performed by professionals with some legal education. In particular, outside the urban centers, where there are fewer lawyers, such services would be valuable. Perhaps a paralegal profession could be created, analogous to nurse practitioners in the United States, in which certain specified services could be performed, and the others referred to a lawyer.

According to the Ghana Bar Association, in 2014/2015 there were 2,134 lawyers in good standing in the country.[178] However, considering that 200–250 lawyers are graduating from the Ghana School of Law every year, it seems like this number could be higher. The majority of legal practitioners are located in Accra and other urban centers. A lawyer in Tamale noted that there are 10 practicing lawyers in Tamale, but that it would be "rare" to find a lawyer in the Northern, Upper East and Upper Western regions. Instead, clients seeking legal advice or representation have to come to Tamale.

The **Ghana Bar Association** is the professional association for lawyers in Ghana. The Bar Association represent the legal profession on various government bodies, including the Judicial Council and the Land Commission. The bar organizes continuing legal education training, an annual conference that reportedly is well-attended, and social and networking events, mostly centered around Accra. The Bar Association has chapters outside Accra, including a chapter in Tamale. It is mandatory for lawyers to obtain a license to practice law in Ghana. The Ghana Bar Association is implementing the licensing regime on behalf of the General Legal Council. The Bar Association issues licenses, which need to be renewed annually, but the Council has the right to suspend or cancel them.

While up-to-date, reliable court statistics is not available, according to a study from 2010, a high percentage of cases in the Commercial Court related to banking and financial services.[179] According to the court registrar in Tamale, the Commercial Court registers about four or five banking cases per month compared to two or three cases filed between individuals. Several **commercial banks** we interviewed noted that going to court is the last resort for debt collection. Instead, they prefer to restructure loan agreements to be able to maintain good clients and recover the debt. For instance, one banker noted that his banks decided to restructure loan payments for otherwise good clients whose profit margins were unforeseeably reduced as the result of a government maize importation scheme. Another banker engaged in asset-based lease financing shared that when one borrower defaulted in bad faith, his bank was able to repossess the agricultural machinery given as collateral without resorting to court. A third banker noted that the cost of going to court to seek enforcement is often greater than the value of the outstanding loan itself. Although all of the bankers we interviewed said they rarely go to court, the court actions they do take are strategic to send a signal to others.

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[177] http://www.graphic.com.gh/features/features/legal-education-in-ghana-and-the-250-1000-problem-a-closer-scrutiny-by-justice-srem-sai.html.
[178] Ghana Legal Council. http://www.glc.gov.gh/lawyers-in-good-standing/
[179] The World Bank. Use and Users of Courts in Africa: The Case of Ghana's Specialized Courts, 2010.

In some respect, the Ghanaian business community is accustomed to ADR; there is court-connected ADR in the lower courts, pre-trial conferences are required in the commercial courts, and customary adjudication is common. Informal mediation, whether the mediator is a community leader, business leader or a legal practitioner is also common. One lawyer in Tamale noted that in a community where there are just a handful of lawyers who know each other well, informal mediation, without involving the court or any mediation or arbitration center, is very common. Other forms of more organized, private adjudication have been available for decades, but the appetite and uptake seems slower. For instance, the **Ghana Arbitration Center**, formed by a group of lawyers 20 years ago, has a roster of 25 arbitrators but receives about only 10–15 arbitration cases per year. The Arbitration Center attributes the limited use of the center to a general lack of awareness about arbitration and conceded the need to do more outreach to the legal and business community.

Although some lawyers advise their commercial clients to include arbitration clauses in contracts, others were more hesitant. One lawyer noted that arbitrators are lawyers but with little or no training in arbitration. Another lawyer said, "I'm not confident about the state of arbitration in Ghana to recommend it to my clients. Who are the arbitrators and how well do they know arbitration? There are some well-respected retired judges that are becoming arbitrators so I think arbitration is developing, but we are still waiting to see." Instead, for companies engaged in international trade, lawyers recommended arbitration in London or New York.

Customary adjudication, where disputes are adjudicated by Chiefs, Queen Mothers, religious leaders or elders, is regulated by the 2010 ADR Act. **Customary adjudicators** deal with a range of disputes, many related to land disputes, but also disputes related to commerce. A significant difference between customary adjudication and other forms of ADR is that the adjudicator considers the facts to the dispute, but also the social norms surrounding the parties. Thus, a settlement seeks to restore a business relationship but also repair any infractions of social norms.

There are a number of other organizations providing ADR services. For instance, the non-governmental **Consumer Protection Agency (CPA)** advocates for consumer protection and mediates consumer complaints. The CPA receives about 100 consumer complaints per month, of which 90 percent relate to energy, water, and cellphone providers. The CPA resolves about a third of the complaints through mediation, while the remainder are either withdrawn or referred to legal counsel when mediation fails. The CPA finds that the courts view CPA's ADR services favorably and enforce their mediation agreements.

Several **donor-funded judicial reform projects** are being implemented in Ghana. The Ghana Business Enabling Programme (BEEP), funded by the UK's Department for International Development (DFID) the program seeks to strengthen the commercial courts, improve commercial small claims procedures as well as arbitration. According to the BEEP, the government has demonstrated some ownership of the reform programs, but government leaders need to show more commitment to improve the enforcement of legal decisions or reform small claims procedures.[180] The Ministry of Justice and Attorney General (MOJAG) is also collaborating with DFID on the Strengthening Action Against Corruption (STAAC) project to implement anti-corruption activities in the Judicial Service. Moreover, the MOJAG is collaborating with the European Union to implement the Accountability, Rule of Law and Anti-Corruption Programme (ARAP) to deter, detect and sanction corruption in the judicial system.

Access to information is key for businesses to learn about market opportunities, price discovery, and market regulations. **Business associations** interact with policy makers to advocate on behalf of their members' interests and connect members to training, marketing, and networking opportunities. In addition, business associations play an important role mediating disputes between members, or can

[180] DFID, Business Enabling Environment Programme - Private Sector Led Growth, Annual review (2) 202455 (January 2017). Available at https://devtracker.dfid.gov.uk/projects/GB-1-202455/documents

provide formal ADR forums with expert information on industry customs. As described in more detail in the Trading Across Border chapter, key business organizations include the Chamber of Commerce, the Federation of Associations of Ghanaian Exporters (FAGE), the Association of Ghana Industries (AGI), the Sea-freight Pineapple Exporters of Ghana (SPEG), and the Ghana Association of Women Entrepreneurs (GAWE).

For smaller businesses, especially outside the capital, computer and internet literacy is an imperative tool to access information. The **Tamale ICT Center** provides youth, girls, micro-businesses, farmers, and local government employees with ICT training. In collaboration with MOFA, the Center organizes two-week intensive computer and internet literacy training courses for farmers, to (among other things) learn how to use relevant government and international websites to find information about regulations and market prices. The Center, which advertises its services through local radio stations, finds that more women than men attend their ICT training programs. In particular, the one-month, three-hour-per-day training program for micro-businesses is popular among women, which is offered at a reasonable cost (GH¢250). The Center has added training courses in the morning and mid-day, which women find more suitable, because domestic responsibilities typically prevent women from attending classes in the late afternoon or evenings. However, the Center is underfunded and needs to upgrade its equipment.

Credit from suppliers or buyers is the major form of credit accessible to small and medium-sized firms. **Outgrower schemes**, where the buyer provides input, or a microfinance institution provides input financing in a three-way lending scheme, requires a robust framework for enforcement. According to parties we spoke with who are engaged in outgrower schemes, the risk of side-selling, where the farmers sell their harvest to someone else than the contracted buyer, is when attractive alternative markets exist. Thus, businesses or farmers' associations involved in cotton outgrower schemes have limited issues with side-selling, because there are few buyers of cotton. However, outgrower schemes for staple crops like maize, where there are plentiful buyers and alternative markets, have a much bigger risk of side-selling. One company shared that in the last cropping season, *more than half* of maize contract farmers did not deliver their crop. These farmers were blacklisted, but the company was rethinking their outgrower schemes, not just because the significant amount of side-selling rendered them unable to cover their input loans, but also because even when buyers did deliver, the yield was less than they had forecasted. One seed outgrower scheme mitigated side-selling by paying twice the price for the seeds than the market price for grains. Close monitoring of the crop, and making cash payments to the farmers simultaneously with the harvest, were other strategies the seed company used. However, at one point when the company's cash flow was insufficient to pay all the farmers in cash instantaneously, farmers sold the seed as grain for half the price.

To sum up, to mitigate side-selling, outgrower schemes use input or input finance, extension services packages, guaranteed buyers, competitive prices, and instantaneous payment in cash or by check. One large farmers' association in the north shared that because they deployed these defensive strategies, its repayment rates approached 92 percent. However, for the 8 percent that did not follow through on their contracts, the association was willing to spend money to recover money. The first step in the recovery process was to involve community leaders; if that failed, the matter was taken to the Police; and if that failed, they filed a case in the district court. With a written contract in hand, the district court has always ruled that the farmer failed to honor the contract by side-selling. While it was rare to have to resort to seizing property, the farmers' association had good experience working with the bailiffs and the Police. However, the farmers' association noted that it could cost GH¢4,000 to recover a GH¢2,000 debt but that they would do it to set an example for others. This sentiment to bring small claims to court to set an example for other suppliers was echoed by others. One large food processor said that it would spend 10 times the value of a debt to send a strong signal to other suppliers or transporters of the importance of honoring a contract.

SOCIAL DYNAMICS

Women use the formal judicial system less frequently than men do. According to one study on the use of courts in Ghana, men brought claims to all lower courts more frequently than women.[181] In the northern part of the country, it is very rare for women to use the court system. Instead, the commercial court in Tamale is used by businessmen versus businessmen or commercial banks versus businessmen, but very few cases are brought by commercial banks against women and disputes between businesswomen almost never enter the commercial court. According to the registrar at the Commercial Court in Tamale, there were a total of five women respondents in non-payment cases brought by banks during the last year, but women were not involved in any cases between individuals or businesses. Those five cases represented 5 percent of all cases the commercial court in Tamale heard in 2016. In fact, the court registrar had to go back to 2006 to find a case involving a woman-owned business as the claimant. Similarly, in the Circuit Court in Tamale there are commercial cases between men, but not between women. On rare occasions, the Circuit Court gets a case brought by a microfinance institution against a woman.

Stakeholders explained the absence of women in the court system in the northern part of the country in several ways. It was noted that women were less likely to access commercial banks. However, as already mentioned in this report, women that do have access to credit are in general better at repaying their loans than men are, and fewer women are therefore involved in non-payment disputes. On the other hand, for some women the potential disgrace and fear that her husband would leave her if she was brought before court for non-payment could well hold her back from seeking access to finance. Moreover, in the northern part of the country, women do business with women and men do business with men, but for cultural reasons it is very rare for women to do business with men. Instead, when women business partners have a dispute, they renegotiate the terms, might involve family members to mediate, or employ shaming tactics. One stakeholder recounted how a woman supplier who had not been paid threated to pull off the retailer's clothes in public. To avoid a public disgrace, the retailer's family members pooled resources to pay her debt. Although private or alternative forms of contract enforcement might be effective, it limits who an entrepreneur can trade with to a small network of known, close-by enterprises. Thus, by limiting transactions to known people that they can meet with, check up on, or reach out to their family members, the business in turn limits its markets and potential for expansion. However, the use of courts, or more importantly the knowledge that using the court system is a possibility, allows for less personal transactions and expansion of business networks.

In Ghana, as everywhere else in the word, business relations are based on **trust**. Trade credit is first extended in smaller amounts, and if the borrow prove that he or she can repay on time, the amount of credit can be increased. One input wholesaler reported that he inspects the stock of his retailers if they are not paying on time. When the business of a trustworthy retailer is slow, he would, like in other economic settings, extend the terms of credit. However, when the retailer is not repaying credit because of bad faith, the input wholesaler cuts off the supplier's credit, and threatens the retailer with legal action. Thus, legal actions or the treat of it, enabled the wholesaler to take risks and extend his network of retailers to the three northern regions of the country. However, for women in business that do not see the judicial system as an option, their business horizons are much more limited.

In September 2015, the well-known Ghanaian investigative journalist Anas Aremeyaw Anas released a film documentary detailing the extent of **corruption in the judiciary**. The film showed 34 judges from the lower courts and the High Court, as well as 146 judicial staff members, accept bribes in ongoing cases. For instance, a respected and well-known High Court judge is shown accepting a bribe of GH¢10,000, equaling the judge's one-month salary, for dismissing the charges in a serious economic crime trial. The

[181] Unfortunately, the study does not report how many plaintiffs in the commercial court were women, but it notes that 9% of respondents were women, 20% were men, 67% private firms, and 4% public entities. The World Bank. Use and Users of Courts in Africa: The Case of Ghana's Specialized Courts, 2010.

documentary was aired in movie theaters and on the Aljazeera TV channel—and it went viral. When the scandal broke, the general population was enraged and demanded immediate action. The President's office barred the judges from the bench but did not bring criminal charges against the corrupt officials. Some people high up in the administration advocated for prosecution and for taking the opportunity to clean house in the whole judiciary. However, the judiciary was in an uproar and demanded that the President kill the story. Because of concerns about losing the support of the judicial branch just a year before general elections, the executive branch chose to not rock the boat and did not bring criminal charges against those captured taking bribes on film.

Few people have personal experience, or know someone who has had experience, with the court system. A large survey found that only 8 percent of the respondents had personally been involved in, or had a family member that in the last 5 years had been involved in, an administrative, civil, or criminal case as a respondent, defendant or witness.[182] This is not necessarily a low number, since one of the key functions of the judiciary is deterrence. However, in 2014—and hence before the on-film corruption scandal—the Afrobarometer survey found that more than 50 percent of the respondents did not believe the courts to be fair. Throughout this assessment, legal experts stressed that the public's trust in the judicial system was severely damaged following the scandal and that the government needs to lead boldly to root out a persistent culture of corruption.

[182] AfroBarometer's national public attitude surveys on democracy and governance, 2014. http://www.afrobarometer.org/online-data-analysis/analyse-online

ANNEX I: RECOMMENDATIONS

The following tables outline each of the AgCLIR recommendations, including the estimated timeframe for reform and proposed metrics for success. They are organized by chapter.

STARTING A BUSINESS

STARTING A BUSINESS	
Recommendation	**In coordination with NBSSI, coordinate to offer regional business skills trainings and extension services for smallholder farmers. Offer a small business loan at sub-market rates through a local financial institution for participants who successfully complete skills training and who also formalize operations.** **With support of SADA to facilitate engagement within the Government of Ghana, pilot test this approach in support of community groups in northern Ghana seeking to establish formal livestock support facilities to serve what is primarily an informal livestock transportation corridor from neighboring countries into Kumasi and Accra. Use these livestock support centers to help coordinate feed markets to serve regional livestock trade**. ** Precondition: Coordinate with Registrar General to ensure that the web-based registration platform and payment system are fully functional.*
Justification for the proposed intervention	Small-scale agriculture is a business. Many smallholder farmers and agricultural SMEs have sound technical skills, but have only rudimentary understanding of business planning tools. However, some discrete opportunities appear attainable with improved cash flow planning and simple bookkeeping skills. In the Savannah region in particular, community organizations have expressed interest in better tapping into the informal regional livestock trade. Recognizing that the considerable value and volume of the trade from West Africa, community groups expressed interest in the potential for starting a business in this market system. Notionally, an organized livestock support corridor could help to ease the relational strains between the foreign livestock traders and the communities upon whose lands the cattle graze without fees for land use. It could further help to organize the market for feed in the region. If undertaken in conjunction with a mobile payment system platform proposed as a reform under the "Getting Credit" chapter, then further opportunity will arise to leverage the payment system itself as a rudimentary bookkeeping and planning tool. Furthermore, many of these smallholders and SMEs operate informally. In Ghana, to the extent that public investments and private capital flow into agriculture, they are largely channeled into higher-value commodities with better organized market systems and where actors have basic business planning tools. Formalization can offer the Government of Ghana improved data on regional economic performance and underscore the need for public infrastructure funding in support of non-cocoa agricultural commodities.

	As a precondition, the Companies Register within the Registrar General's office must have a fully functional web platform capable of accepting electronic payments. As of the date of publication, the web platform allows submission of documents, but the web-based payment platform does not function properly, with stakeholders reporting that payments debited from accounts do not reflect in the Registrar General's system, and the platform does not create a clear record at the time of payment. This requires stakeholders to present themselves in person with their funds, limiting the time and cost savings associated with a web-based registration platform.
Metrics for success	• Increased number of formal firms registered in agricultural market systems • Income growth from improved operations and training • Increased income in grain and legume residuals, as well as new feed sources
Estimated time for reform	1 – 3 years. NBSSI has a program design based on a concept note supplied to a multilateral donor organization that has indicated approved funds for the Greater Accra region. Consider funding expansion of this program into the Savannah region.

OBTAINING SEED

OBTAINING SEED	
Recommendation	**Support the expansion of the commercial seed sector through capacity building and improved market linkages.**
Justification for the proposed intervention	Development of a robust seed industry in Ghana will require the professionalization of actors all along the seed production chain, as well as improved collaboration and advocacy for the industry as a whole. Nascent seed companies, including existing small-scale seed growers who wish to expand their production, will need training in all aspects of running a seed company—from business skills to processing to branding and labeling guidelines. To be successful, these companies will need to develop strong commercial relationships with agrodealers, who will be the chief distribution network and primary point of contact with farmers for their products. Moreover, the industry will need a platform for ongoing collaboration and debate as the sector evolves, particularly as GOG implements the new seed regulations and the private sector takes on a more expansive role in seed production and distribution. Donors and the GOG should continue to invest in the domestic seed industry providing training and finance for small seed companies and strengthening the capacity of NASTAG as an advocacy platform for the industry. The design of the new seed subsidy under the Planting for Food and Jobs campaign should be revisited to ensure that the proposed mechanism for the procurement and distribution of seed promotes and strengthens private sector linkages rather than inserting the government as a middleman in the distribution chain.

Metric for success	• Number of seed varieties released by the private sector • Volume of certified and foundation seed produced by the private sector
Estimated time for reform	The development of the seed industry will be a long-term process, but initial results can be achieved within five years. The redesign of the seed subsidy program should be targeted for the second year of its implementation.

OBTAINING SEED	
Recommendation	**Increase GOG capacity to fulfill its role in effectively regulating the private seed sector and supporting farmer access to seed in accordance with National Seed Policy, National Seed Plan, and the Act and regulations.**
Justification for the proposed intervention	With the development and expansion of the private seed sector, the role of the GOG as regulator will take on renewed importance. To date, the GOG seed institutions have had insufficient resources to carry out their mandates, and confusion over the interpretation of the Act suggests the need for greater public-private dialogue and awareness-building regarding the new legal framework. With the expected passage of the draft seed regulations in summer 2017, training should be conducted for GOG staff and the private sector to outline the rights and responsibilities of all parties under the new rules. The relinquishment of various market-based functions should allow the GOG to free up resources previously spent on seed production and processing to invest in seed laboratories, variety trials, and certification inspections. As the private sector takes on more and more of the responsibility for seed research, production, processing, and distribution, the GLDB will need to develop a strategic plan for its own evolution. The National Seed Plan envisions a gradual phasing out of the GLDB from most seed production and processing, while retaining its role in promoting non-commercial crops and foundation seed for small-scale seed growers.[183] Donors should work with the GLDB leadership to develop a five- to ten-year strategy, including clear targets for when to cease production of foundation seed for commercial crops such as maize.
Metric for success	• Number of trainings held and number of GOG and private sector attendees • GLDB Strategic Plan

[183] See National Seed Plan, Section 4.3: "An efficient organization for foundation seed will remain necessary for most crops and varieties. This plan proposes shared governance between the public foundation seed entity, the private sector, the research institutions, and the regulatory bodies. The GLDB can be developed to fit this role and several corporate options can be considered including the PPP option. The role of GLDB will be more appreciated in the future when some private companies develop their own foundation seeds of profitable crops. It will then be left to GLDB to ensure continuous production and supply of foundation seeds for crops which are less fancied by the private seed sector. Further, even for profitable seed types, smallholder seed enterprises will likely be fully reliant on GLDB or its equivalent for their foundation seed input. Again, accountability, production planning, cost recovery and incentive structures will be key to increasing the performance of the responsible agency."

Estimated time for reform	Training sessions should be conducted within one to two years of finalizing the draft seed regulations. The GLDB Strategic Plan could be developed within a year but its implementation should be supported and monitored over the term of the plan.

OBTAINING FERTILIZER

OBTAINING FERTILIZER	
Recommendation	**Develop a multi-year strategy for the fertilizer subsidy program, with a clear exit plan. Strengthen M&E of the program to provide empirically based input into the design and implementation of the program in subsequent years. Monitor the E-Soko subsidy registration and tracking system closely.**
Justification for the proposed intervention	• Fertilizer subsidies are not sustainable and have not significantly expanded agricultural productivity. • The subsidies distort the operation of the fertilizer market and provide a disincentive to private sector fertilizer distribution. • The subsidy program is not well-targeted, and there are significant leakages of subsidized fertilizer into secondary markets, including neighboring countries. • The budgetary cost of subsidies is high, with a very high opportunity cost in terms of foregone expenditure and investment in other priority areas, such as extension, irrigation infrastructure, rural roads, and enhanced public sector capacity to test fertilizer and monitor/inspect fertilizer distribution networks and facilities. • AGRA has conducted a cross-country study of fertilizer subsidies in African countries. AGRA has facilitated the creation of a Steering Committee under MOFA/CSD leadership to better organize and manage Ghana's fertilizer subsidy program. A key gap is inadequate M&E of the subsidy program. USAID/Ghana could allocate resources to IFPRI, APSP or other entities to upgrade M&E. • The critical stakeholders that must be engaged to facilitate stronger M&E and a functional Steering Committee are MOFA senior officials and the CSD. • The new Administration in the GOG is strongly committed to its accelerated food production program to demonstrate that it intends to expand domestically produced food supplies, rural employment, and farm incomes. The GOG is planning to expand the subsidy program in 2017. • AGRA's 10-country study of fertilizer distribution systems provides ample evidence of alternative practices to those applied in Ghana. Stronger M&E, electronic voucher systems, clearer targeting, and gradual exit strategies show that subsidy programs can be phased out in a way that incentivizes

	the private sector to respond to farmers' demands and specific fertilizer needs (by crop and for different soil types/characteristics).
Metric for success	**Metrics for success include:** earlier announcement and publication of the details of the subsidy program each year; greater clarity in subsidy program objectives and targeting (if any); engagement of both importers and upcountry wholesale distributors and retailers in planning the subsidy program and its implementation details; earlier, timely distribution of fertilizer upcountry (following earlier importation); evidence of smallholder use of subsidized fertilizer that leads to productivity gains; successful pilot testing and adoption of e-registration and e-voucher systems used in the subsidy program.
Estimated time for reform	Five years or less to phase out the subsidy program. A better designed and implemented subsidy program will be rolled out in 2018.

OBTAINING FERTILIZER	
Recommendation	**Strengthen the capacity of PPRSD to perform its mandated duties of fertilizer testing, field trials of fertilizer formulations on crops, fertilizer registration and licensing, and inspection of fertilizer in distribution systems and at points of storage and sale. MOFA should explore options for promoting private testing and inspection of fertilizer under PPRSD supervision.**
Justification for the proposed intervention	• PPRSD is unable to fulfill its legislated mandate with the inadequate financial, material and human resources it receives in budgetary allocations. • PPRSD is a source of delay in fertilizer registration and licensing. The requirement that new imported fertilizer formulations require two cropping seasons of field tests is a disincentive to introduction of fertilizer products tailored to specific crops and soil conditions of different agro-ecological zones. • MOFA would need to advocate forcefully for greater budgetary resources with the Ministry of Finance. GOG expenditure on agriculture has been < 5 percent since 1990, far below the CAADP target of 10 percent. • While MOFA will likely receive greater budgetary resources in 2017 due to the Planting for Food and Jobs program, it is not clear if the Ministry will be able to compete for greater MOF resource commitments to upgrade the capacity and human resources of its line directorates. • Ensuring that farmers have access to high-quality fertilizers that meet the standards laid out in the Plant Fertilizer Regulations is critical to raising agricultural productivity. Regulation of the agri-chemical industry is also essential for human health (in using chemicals and in the safety of the food supply). • Private sector capacity in Ghana to test fertilizer (for chemical composition) and carry out inspection is not yet developed. This may be a function of heavy-handed public-sector regulation and carrying out of regulatory

	functions. Scope for outsourcing some of these functions should be explored. Note, however, that PPRSD, other MOFA department and the CSIR institutes would likely oppose such measures and view any funding going to private performance of what have been public sector roles as negative and a vote of no confidence in their capabilities.
Metric for success	**Metrics for success include:** greater budgetary allocations to MOFA generally and to PPRSD in particular. How increased resources are used also needs to be tracked and examined for improvements in physical facilities (labs, testing facilities), staff numbers and training, and reduced time required for fertilizer registration, licensing, permits and importation cycles.
Estimated time for reform	MOFA advocacy for greater budgetary resources will be ongoing and is part of the budgetary allocation process. Higher expenditure of MOFA resources for PPRSD functions and capacity could take several years.

OBTAINING FERTILIZER	
Recommendation	**Promote soil testing on a far wider scale than currently carried out.** **Testing and analysis of soil samples is critically important for improving fertilizer targeting to different crops and soil conditions.**
Justification for the proposed intervention	• Blanket, one size fits all fertilizer recommendations that are based on outdated information lead to importation and use of urea and standard N-P-K (15-15-15) formulations that do not achieve good results in terms of higher crop yields. • One fundamental issue is moderate to high acidity of most soils in Ghana. This limits the ability of plants to uptake certain nutrients efficiently. Applying lime to soils in many production zones will raise pH and lead to better results. • In many cases the ratio of N, P and K in compound fertilizers needs to be modified for particular soil conditions (and crops). • In many cases soil micronutrient deficiencies require addition of elements such as boron, zinc, manganese, copper, and iron to compound fertilizers to achieve satisfactory results for field and cash crops. • Much of the fertilizer applied to crops in Ghana achieves poor results. This can discourage farmers from using fertilizer in future cropping seasons. By increasing soil testing and the availability of well-tailored fertilizers to growers, they will witness stronger productivity gains and be willing to purchase and apply fertilizer in the future. Indirectly, this would support phase-out of the subsidy program. • MOFA needs to allocate more resources for soil testing capability at key public sector laboratories (of CSIR Institutes, public universities, and PPRSD). Farmers need to be convinced of the need for more soil testing and to be willing to pay more for tailored formulations. The fertilizer import and blending industry needs to be willing to import and produce a variety

	of blends that increase productivity of multiple crops grown in different soil conditions. Fertilizer regulations should be modified to allow for blending "new" formulations (which may only require minor adjustments in macro-nutrient ratios and addition of small amounts of micro-nutrients) without long approval processes. • Current legislation and regulations require importers to have PPRSD test new fertilizer formulations in two seasons of field trials. It may prove very difficult to relax these regulations in the interest of faster introduction of better adapted fertilizers, though GOG flexibility would speed up adoption of better adapted fertilizer blends. • Soil testing is costly and MOFA or the Minister of Environment, Science and Technology (parent ministry of CSIR) need to allocate significantly greater resources to collecting and analyzing soil samples. The willingness of small farmers or FBOs to pay for some of the costs of soil testing might be limited initially, though willingness to pay would likely increase over time as the greater response to (modified) fertilizer applications becomes evident. • Use of fertilizer in SSA has not expanded sufficiently since 2006 to achieve the Abuja Declaration goal of increasing fertilizer application six-fold to 50 kg/ha in 2015. Productivity gains for major field crops (grains, oilseeds, legumes) have been modest and fertilizer subsidy programs remain in place in many SSA countries with no clear exit plan or timeline. In Asia, fertilizer use expanded dramatically during the Green Revolution, as farmers became convinced of the productivity gains that improved seed/fertilizer packages could bring.
Metric for success	**Metrics for success include:** Mapping of soils by SRI in regions beyond Brong-Ahafo and Northern Region. Soil testing by both public laboratories and private firms, such as Envaserv Research Consult Ltd., expands. Capacity to analyze soil samples in public laboratories increases, as evidenced by increased numbers of samples tested and greater speed in performing tests. Over time, a higher proportion of testing is carried out by private firms.
Estimated time for reform	Donor funding will need to be secured by SRI to go beyond the soil mapping it has done with AGRA resources. Investments in greater laboratory capacity (requiring capital investment, investment in equipment and reagents, and increases in trained lab technicians) will likely require donor resources.

PROMOTING MECHANIZATION

PROMOTING MECHANIZATION	
Recommendation	**Discontinue GOG/MOFA tractor import programs. Provide a positive enabling environment for private importers, distributors and service providers to grow. Assist the private sector, where deemed appropriate, to provide training of mechanics and operators. Develop a tractor and agricultural machinery certification protocol, along with guidelines for certification of operators and mechanics.**
Justification for the proposed intervention	• G2G import programs have led to a panoply of imported tractors, some of which have not had local dealer representation to provide after-distribution training and maintenance and repair services. It is likely many of these tractors are no longer operational, due to a lack of spare parts and mechanics trained to work on those brands. • The private sector is willing and able to import and distribute tractors. Many of the imported tractors are used. New tractors are being imported by three or more reputable firms that are providing attentive after-sales service support and training. • Imported tractors by MOFA/AESD have been distributed on heavily subsidized terms. Selection criteria are not clear, and there is virtually no monitoring of tractor use and profitability after distribution to private operators. This is not sustainable, leads to some crowding out of private tractor importation, and does not represent a good use of scarce MOFA funds (when other functions, such as research and extension remain under-funded and are far higher priority).
Metric for success	**Metrics for success include:** Declining use of G2G tractor import arrangements, with far fewer tractors distributed by the public sector. Increased MOFA/AESD budget for other priority purposes. Track tractor importation, sales by major distributors, establishment of service providers, and access of small farmers to affordable tractor services (mainly field preparation, transport, but also evidence of expansion in use of tractors for a wider range of agricultural tasks, including shelling, seeding and weeding).
Estimated time for reform	MOFA will distribute the remaining tractors from the current G2G program by mid-2017. Shifting of MOFA/AESD expenditure to other functions may take one or more budget cycles. AESD will need to hire more trainers and mechanics and shift more expenditure to field training, inspections and certifications.

PROMOTING MECHANIZATION	
Recommendation	**Evaluate the recent performance and profitability of AMSECs and, pending probable findings, be willing to allocate more resources to hiring and posting of trainers and master mechanics to support the development of a reliable private sector tractor service capacity.**
Justification for the proposed intervention	• AMSECs generally do not operate profitably and most have not been able to pay off the government loan for equipment within the required 3-5 years. No new AMSECS should be created, while ways to enhance the viability of already created AMSECs should be examined. • The private tractor hire service sector has been responsive to farmer demands for plowing, shelling and transport services. There are times of peak period operation when tractors are down awaiting spare parts or specialized mechanic services. • Most mechanics are not formally trained and are unable to do more than simple repairs. They could benefit from formal training in maintaining specific tractor types/brands. • The major private sector importers are doing their own training of mechanics, but these efforts could be expanded and supported by the public sector. A possible opportunity for a PPP might be a specialized Technical and Vocational Education and Training (TVET) institute for mechanics generally, including mechanics trained to work on agricultural machinery and implements.
Metric for success	**Metrics for success include:** Conduct an assessment leading to concrete recommendations to discontinue AMSEC creation, selectively strengthen some (with high probability that they will be able to operate profitably), and discontinue supporting others. Public investment in vocational programs or short-term training courses to train more mechanics and operators needs to be done in collaboration with importers committed to building strong post-sales service and maintenance/repair capabilities in the private sector. Emergence of a more highly skilled cadre of trainers, mechanics and operators.
Estimated time for reform	Moving progressively away from government-subsidized AMSECs to a set of programs to support the emergence of a private sector-led tractor import and service industry will take time and political will. Government importation and distribution of tractors is politically popular, as it can be used as a vehicle for political patronage. Government officials will need to be convinced that there is a better way to modernize agriculture through expanded mechanization that responds to farmer and private sector demand in a cost-effective way.

PROMOTING MECHANIZATION	
Recommendation	**Based on IFPRI's and FAO's excellent research, develop an agricultural mechanization strategy and action plan that supports the emergence of private sector-led importation, distribution, after-sales service and maintenance/repair, and custom hire tractor service capacities.**
Justification for the proposed intervention	• Significant recent research has generated evidence that current MOFA mechanization programs are not working well. • Selective additional research could inform policy-makers that will fill gaps in the knowledge base. Surveys of how recipients of AESD-distributed have used their tractors, and empirical measures of capacity utilization, profitability and repayment rates of AMSECs, could provide further convincing evidence that mechanization strategies and policies need to change. • Donors could support technical workshops with public and private stake-holders, selective studies, and specialized consultants to assist the GOG in developing a more coherent and better-informed mechanization strategy. Donors such as FAO and GIZ have experience in supporting mechanization. • MOFA/AESD's role and functions need to be redefined to support private sector-led mechanization. • Additional uses of tractors (for seeding, weeding, threshing, shelling, transport) need to be promoted. This will require increased acquisition of agricultural implements and attachments, education of owners and operators, and training in their use. Tractors can then be more fully utilized throughout the agricultural cycle from field preparation to postharvest processing. • A broader range of tractors (beyond the widely used four-wheel 60-100 HP tractors) should be considered for a) irrigated agriculture (where two-wheeled power tillers of ≤ 20 HP are more appropriate) and b) for lighter, more friable soils (where four-wheeled tractors of 30-60 HP might be suitable and durable enough).
Metric for success	**Metrics for success include:** a formal MOFA policy and strategy paper on mechanization is drafted, vetted by Parliament, and approved. MOFA/AESD budgets are reprogrammed to reflect the new strategic thrusts. Stronger M&E of AESD programs to date (importation of tractors via G2G agreements and distribution on subsidized terms; performance of tractors used by private farmers and AMSECs). Put in place more rigorous and regular M&E going forward under the new mechanization strategy.
Estimated time for reform	Provided other donor support can be lined up, a 3-4 year time horizon is realistic. FAO, GIZ and USAID could collaborate in providing the necessary technical and financial resources.

GETTING CREDIT

GETTING CREDIT	
Recommendation	**In the spirit of the financial inclusion policy, engage the Bank of Ghana, Ministry of Finance, GHAMFIN, GAB, the credit bureaus, and other industry associations to gauge stakeholder interests and concerns regarding e-money platform data for purposes of credit reporting.**
Justification for the proposed intervention	Vendor and utility payments represent an established source of credit payment history in many countries. In particular, in the absence of past credit history, or in circumstances with a loan default, vendor and utility payments can serve as an important source of relevant data to assuage concerns over the relative risk of a loan applicant. Women are particularly disadvantaged when it comes to demonstrating good credit history. E-money platforms are scrutinized and verified through oversight of dedicated e-money issuers by the Bank of Ghana. These platforms must abide by know-your-customer requirements, providing proof positive of the identity of the e-money user. DEMIs maintain years of payment history data that can serve to allay concerns over the risk of loan applicant with no loan history. A review of credit history regulations, with specific focus on reporting and disclosure requirements as well as customer privacy requirements must be undertaken to determine whether regulatory modifications are required.
Metrics for success	• FTF regulatory reform indicator for policy change • Increased volume of loans • Increased volume of loans to women
Estimated time for reform	2 years for regulatory reform

GETTING CREDIT	
Recommendation	**In conjunction with the forthcoming financial inclusion policy, conduct a review of banking regulations to identify the potential of mobile network operators with operations in Ghana to connect with their regional payment platforms to offer cross-border mobile wallet services. If deep-dive review demonstrates market, undertake a policy reform to enable foreign exchange through mobile platforms and build capacity for livestock service centers in northern Ghana.**
Justification for the proposed intervention	Considerable regional livestock trade traverses northern Ghana to reach higher-value end markets in Kumasi and Accra along a central transit corridor. The majority of this trade is informal, with cash transactions in substantial

	volumes in a risky security environment with high incidences of theft according to 2015 ILRI study. While these livestock traders have historically utilized pastures held in customary title along this corridor, anecdotal references from community groups in Tamale indicate that the volume of livestock is increasing while at the same time demand for these lands by the community are increasing. This is leading to strains on relations between the traditional communities in northern Ghana and the foreign livestock traders. This represents a challenge, but also a potential opportunity. Without seeking to overregulate the informal livestock trade, mobile wallet payment systems offer a potential solution for organization through service providers. Mobile payment systems usage is beginning to spike in West Africa; in Ghana, the past 5 years have seen exponential growth, even in rural segments of Ghana. Notably, several organizations have been experimenting in linking mobile payment platforms with agricultural value chains in Ghana, with considerable success at smaller scales. This would propose to expand this style of support to livestock within the targeted region. Either stand-alone, or preferably in conjunction with the recommendation under the "Starting a Business" chapter, developing a regional e-money payment platform could help increase the safety and protection of funds while also helping to create better tracking for the size, value, and volume of livestock trade. If developed in tandem with dedicated livestock support facilities, traders could in time be channeled into a regional livestock corridor that could begin to ease tensions on the use of rural land in northern Ghana while providing dedicated livestock support services in a cashless corridor, facilitated by an organization like SADA. This would require revised rules on foreign exchange transfers among dedicated e-money issuers.
Metrics for success	• FTF regulatory reform indicator for policy change • Increased volume in rural mobile payments within the SADA region as a targeted zone of influence. • Increased income from livestock support services • Increased number of mobile payment vendors
Estimated time for reform	2 years for regulatory reform 5 years for pilot program

PAYING TAXES

PAYING TAXES	
Recommendation	**Lift the new policy that suspends tax exemptions, or at a minimum provide relief for small and medium-sized businesses, until the review of existing exemptions is complete.**
Justification for the proposed intervention	The recent blanket suspension of tax exemptions requires businesses to pay tax of up to 22.5 percent on previously exempt transactions and seek a refund along with documented justification for the exemption. This change in policy significantly raises costs for businesses, particularly for small and medium-sized businesses that lack the cash flow to front the tax without assuming a high-interest loan or line of credit. While the GOG goal of ending fraud in the exemption regime is admirable, a blanket policy against exemptions threatens to drive smaller and disadvantaged businesses out of the market altogether, a result that would be counter to the policy rationale for which many of these exemptions were enacted in the first place. The policy should be lifted, at a minimum for small and medium-sized businesses, or replaced with a more targeted approach based on the findings of the ongoing GOG review of the exemption regime.
Metric for success	N/A
Estimated time for reform	Immediate

ACCESSING MARKETS AND TRANSPORT

ACCESSING MARKETS AND TRANSPORT	
Recommendation	**Improve and enforce food safety standards in domestic value chains.**
Justification for the proposed intervention	Along the whole value chain there is a lack of focus on food safety standards for domestic consumers. Testing in the domestic market is much less common and infrequent. As Ghana is making efforts to formalize its economy, it should prioritize domestic food safety as a national health and economic issue. There should be testing done on a regular basis in the domestic market to ensure the maximum health and safety standards are applied. Numerous stakeholders need to come together on this issue, from the policy level such as MOFA and Ministry of Health/FDA, to the civil society level to increase consumer awareness. It would also require trader and agribusiness participation. GOG should leverage the success and knowhow of the commercial exporters and ask them to be involved in advancing food safety in domestic value chains. Suggest doing field days and for example, bring smallholder vegetable farmers to an export packing house to learn firsthand the procedures in place. At this stage, the main constraint is financial as the international markets pay price premiums for ensured food safety while that is not the case in the domestic markets. However, there are vegetables sold in plastic wrap in Accra supermarkets so there is clearly a growing market. It is recommended the food safety campaign and enforcement focus on both grains and fresh produce.
Metric for success	• Aflatoxin testing for in domestic maize markets • Agribusiness selling packaged and dated fruits and vegetables in domestic supermarkets • Relaunch Green Label Scheme with significant civil society, agribusiness, and producer associations buy-in
Estimated time for reform	5 years and ongoing

ACCESSING MARKETS AND TRANSPORT	
Recommendation	**Improve conditions and ensure regular maintenance of feeder roads.**
Justification for the proposed intervention	Feeder roads are in poor condition and lack regular maintenance. Only 23 percent of the roads in Ghana are paved. During the rainy season, potholes and poor conditions are even worse. Poor roads cause damage to vehicles and delay the time and cost of transporting goods. A large majority of the non-paved roads are crucial for transporting food from the farm to aggregation points and to markets. The key stakeholders to ensure rural roads receive the proper attention include the Ministry of Roads and Highways and the District Authorities. The main constraint is funding. Even though road construction and maintenance are expensive investments, they are crucial national infrastructure for connecting farmers to domestic and international markets.
Metric for success	• Increase in percentage of roads paved • Regular road maintenance plans
Estimated time for reform	5 years and ongoing

ACCESSING MARKETS AND TRANSPORT	
Recommendation	**Increase access to agronomic and market information for female value chain actors.**
Justification for the proposed intervention	Even though women are active farmers, they have limited access to information about good agricultural practices. Women are of strategic importance to agricultural value chains in Ghana as they are heavily involved in production, processing, marketing, and cooking/household consumption. Due to cultural norms, female farmers do not always benefit from government programs, including extension and subsidies, and have limited access to external resources. Good agriculture has to start at the farm-level and improving farming practices would result in higher yields, better prices, and quality assurance. Additionally, rural markets are dominated by female traders who lack accounting skills to formalize their businesses. The main stakeholders include MOFA, District Assemblies, donors, Ministry of Gender, and producer associations. The risks and constraints are recognizing that providing technical assistance to female farmers has to be culturally appropriate and changing farming habits can be slow to adopt. GOG and donors can facilitate access to credit and finance with specifically designed modalities for female borrowers, they can promote the hiring of female extension workers and female agronomists to enable communication with female farmers, train traders on basic business and accounting skills, and incorporate a gender-sensitive approach to value chain development.
Metric for success	• Extension models with gender focus • Promotion of appropriate technology and finance models for female borrowers • Agricultural trainings for women farmers • Business trainings for women traders
Estimated time for reform	5 years and ongoing

TRADING ACROSS BORDERS

TRADING ACROSS BORDERS	
Recommendation	**Conduct a release time study for the Port of Tema.**
Justification for the proposed intervention	The release time in Port of Tema varies significantly and a considerable amount of consignments are physically inspected. The additional time it takes in port to clear goods, especially perishable goods, adds cost and uncertainty to the importation and exportation process in Ghana. Using data from the World Bank's Doing Business Indicators, one study found that "each day in transit for vegetables and fruit is equivalent to lowering their prices by 0.9 percent."[184] Ghana has ratified the WTO's Trade Facilitation Agreement (TFA), which came into force in February 2017. The FTA recommends that member countries undertake and publish average release time studies as a tool to support implementation of the FTA. GCNet said to this team that they are interested in engaging a neutral international organization to conduct a time release study and are seeking financial support for such a study. Support from other key stakeholders including the GRA, the Port and Harbour Authorities, MOTI, MOFA etc. to conduct such a study will also be necessary. The World Customs Organization (WCO) has conducted time release studies throughout the world and in Sub-Saharan Africa. The GRA and other government organizations have already participated in numerous capacity building and training initiatives organized by the WCO. A time release study would pinpoint bottlenecks and opportunities for improvements in the consignment clearance process.
Metric for success	Completed time release study offering data-driven constraints analysis.
Estimated time for reform	It would take about one year to build consensus, awareness and conduct a time release study.

TRADING ACROSS BORDERS	
Recommendation	**Conduct a checkpoint verification study for agricultural goods along the major trade corridors.**
Justification for the proposed intervention	Unauthorized checkpoints and informal payments along major trade corridors increase the cost of doing business. For agricultural goods, additional transit time on the road can lead to increased postharvest losses. The Borderless Alliance's last verification trip in Ghana was in 2013.[185] The Ministry of Highways and Roads and other stakeholders noted that it appears that the number of checkpoints has increased over the last couple of years. To verify the number

[184] USAID, Calculating Tariff Equivalents for Time in Trade. 2007. http://www.nathaninc.com/sites/default/files/Calculating_Tariff_Equivalents_for_Time_in_Trade.pdf

[185] Borderless Alliance, 24th Road Governance Report UEMOA. 2013 http://borderlesswa.com/sites/default/files/resources/jun14/24th%20IRTG%20report.pdf

	of checkpoints, where they are located, and which government institutions have erected them, a new verification study is necessary. The Ministry of Highways and Roads expressed interest in such a study for the central and coastal trade corridors, especially within the framework of the Abidjan-Lagos Corridor Organization.
Metric for success	N/A
Estimated time for reform	A checkpoint verification study should take less than one year to conduct by Borderless Alliance. Depending on the findings from the study, additional training for personnel along the trade corridor might be necessary.

ENFORCING CONTRACTS

ENFORCING CONTRACTS	
Recommendation	**Review and expand the legal education system.**
Justification for the proposed intervention	The current system for legal education in Ghana puts significant restriction on how many lawyers there are in the country. Several observers believe there is a shortage of lawyers especially outside of the urban centers. One such notable example is that there are judges in the district courts who are not educated lawyers. The expansion of legal education is a debated issue and multiple reasons have been raised against a reform to expand the teaching capacity of the Ghana School of Law, or allow for other universities to educate lawyers. There is concern that the quality of education would be compromised, there is concern that there are not enough qualified professors, and even the lack of physical space has been raised as a concern. Moreover, it's possible that there are vested interests from the established legal community to restrict entrance to the bar. These concerns are legitimate and have to be addressed; expansion of legal education has to safeguard the quality of the education. To safeguard quality of education, there needs to be qualified professors. However, law professors have to hold a Master of Law (LLM) or PhD in Law to teach, but there is no LLM or PhD program in the country. Thus, such a reform program need to take a holistic approach to the legal education system. In addition, as already suggested by some on the legal education community, to authorize LLB graduates to carry out certain types of legal work would also ensure that people with valuable legal education are able to put it to good use. Given the complexity of the issue, and possible entrenched views and opinions, this is a topic that requires deeper examination, political support and close collaboration with the legal education and professional community. Yet it is a necessary reform to ensure that as the economy is growing there are sufficient legal professionals to support commercial transactions.
Metric for success	Decreased costs of and increased access to legal assistance for commercial transactions.
Estimated time for reform	Greater than 5 years

ENFORCING CONTRACTS	
Recommendation	**Expand women's access to justice in commercial disputes.**
Justification for the proposed intervention	This assessment found that women, particularly in the northern regions rarely use formal courts to resolve commercial disputes. Instead, women in business appear to use informal mechanisms to enforce contracts, such as social pressure or public shaming. While this tactic can be effective in a close knitted community, it limits the opportunity for women entrepreneurs to expand their markets beyond arm-length transactions. To better understand women's use of the formal court system including the court-connected ADR system for commercial disputes, a deep-dive assessment should be conducted. The study should examine the supply side of conflict resolution; court dockets, CCADR files, and interviews with judges, court clerks and mediators to better understand the current usage. Moreover, the assessment should investigate the demand side through interviews with women in business to understand what strategies and mechanism they are currently using, their perception of the formal court system and CCADR as well as what changes would be desirable. Considering that cultural norms varies in the country, the study should focus on one or more regions where agricultural trade and production is prominent, such as the Northern region. Based on the findings from the assessment, a targeted intervention should be designed to better meet the needs of women entrepreneurs' need to resolve to commercial disputes.
Metric for success	Clearer understanding of constraints facing women seeking redress in commercial disputes.
Estimated time for reform	1 year