

# Diagnostic Study of Light Manufacturing in Ghana



## **Diagnostic Study of Light Manufacturing in Ghana**

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## Acronyms and Abbreviations

ACET	African Center for Economic Transformation
ATR	African Transformation Report
AGI	Association of Ghana Industries
DBR	Doing Business Report
EDAIF	Export Trade, Agricultural and Industrial Development Fund
G-CAP	Ghana Conformity Assessment Program
GCC	Ghana Grains Council
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GNI	Gross National Income
GFZB	Ghana Free Zones Board
GIPC	Ghana Investment Promotion Centre
GSA	Ghana Standards Authority
GTF	Ghana Transformation Forum
ISIC	International Standard Classification of Industries
MDAs	Ministries, Departments and Agencies
MOTI	Ministry of Trade and Industry
MVA	Manufacturing Value Added
PSDS	Private Sector Development Strategy
SME	Small and Medium Enterprises

## Abstract

Light manufacturing has the potential to transform Ghana's economy, diversifying the production and export base while increasing employment, incomes, and export earnings. This report presents a diagnostic study of the light manufacturing sector in Ghana, highlighting issues and challenges that should be addressed and proposing some solutions.

The share of manufacturing in Ghana's GDP has decreased from 10.2% in 2006 to 5.8% in 2013. Manufacturing Value Added in 2013 amounted to US\$2,703 million, of which 30% was food and beverage, 19% was paper and paper products, and 13% was chemicals and chemical products. Manufacturing firms report a shortage of critical skills in mechanical and electrical engineering, quality control, and information technology. Manufacturing firms in Ghana are domestic oriented and lag behind their comparators in Kenya and Vietnam on selected indicators of export orientation. The business environment in Ghana has been particularly challenging for manufacturers in the last few years due to a persistent energy crisis and macroeconomic instability.

Areas that could drive light manufacturing in Ghana include cocoa processing, food and agro-processing, textiles and garments, and pharmaceuticals. Emerging and ongoing initiatives that may have significant impact on the manufacturing sector include the development of value chains for some local raw materials; emergence of EDAIF as a source of funding for agriculture and agro-processing; impending implementation of G-CAP to ensure that goods imported into Ghana meet certain standards; and waiver of minimum capital requirements for foreign investors entering the manufacturing sector.

Five key issues and challenges facing the manufacturing sector are: 1) competition from imported goods; 2) excessive taxes, levies, and fees; 3) energy crisis and utility pricing; 4) lack of funding and high interest rates; and 5) lack of government commitment to manufacturing. The report proposes some solutions to address the issues and to help stimulate discussion.

## 1. Introduction

The African Center for Economic Transformation (ACET) recently released the 2014 *African Transformation Report (ATR)*, which analyzes economic transformation in Africa and provides a framework for accelerating the pace of transformation. The ATR identifies light manufacturing as one of the pillars for economic transformation in Africa. Labor-intensive light manufacturing powered economic transformation in China and other Asian countries. It enabled these countries to leverage abundant, low-skilled labor to move from traditional agriculture to modern economies. Light manufacturing has the potential to transform Ghana's economy, diversifying the production and export base while increasing employment, incomes, and export earnings.

This report presents a diagnostic study of the light manufacturing sector in Ghana. It is intended to serve as a background document for a proposed Ghana Transformation Forum (GTF) that will bring together a cross-section of policy makers, the private sector, and experts to discuss and formulate strategies and practical, time-bound recommendations for economic transformation in Ghana.

The rest of the report is organized as follows. Section 2 provides an overview of the state of manufacturing in Ghana with a focus on its size, diversity, business environment, and competitiveness. Section 3 assesses opportunities in the light manufacturing sector and its potential. Section 4 discusses the legal, policy, and regulatory environment governing the sector. Ongoing initiatives in the sector are noted and discussed. Section 5 highlights key issues and challenges in the light manufacturing sector. Stakeholder perspectives are noted and summarized. The report concludes with proposed solution options to stimulate discussions and decision-making at the GTF.

## 2. Overview of the State of Manufacturing in Ghana

The manufacturing sector in Ghana covers 16 of the 33 sub-sectors in the international standard classification of industries (ISIC). Manufacturing Value Added (MVA) was 5.8% of GDP in 2013. The sector has experienced a sustained decrease in its share of GDP throughout the past decade, losing more than 40% of its 2006 share of 10.2% (Table 1). Services and, recently, oil have grown at the expense of manufacturing and agriculture. Average growth rate for the manufacturing sector from 2006 to 2013 was about 2%, if we leave out a 17% growth rate reported for 2011. In 2013, MVA amounted to US\$2,703 million (Table 2). Ranked by value added, the top five sub-sectors were food and beverages (30%), paper and paper products (19%), chemicals and chemical products (13%), other non-metallic products (9%), and textiles (9%).

Ghana does not report a great deal of manufacturing output or employment statistics to international agencies. In 2003, the last time an industrial census was conducted in Ghana, there were about 26,000 manufacturing establishments employing about 243,500 persons. About 55% of the establishments were micro-businesses, employing less than 4 persons; 40% were small businesses, employing between 5 and 19 persons; 5% were medium businesses, employing 20–99 persons; and only 1% were large

businesses, employing 100 or more persons (Table 3). Micro businesses accounted for 15% of manufacturing employment; small and medium enterprises contributed 51% of employment; large businesses accounted for 34% of employment. Most of the establishments were located in the Greater Accra and Ashanti regions; Greater Accra had 25.7% of establishments and 27.9% of employees while Ashanti had 24.7% of establishments and 24.3% of employees. According to the *2003 Industrial Census*, almost 50% of manufacturing employees were apprentices or unskilled workers. About 5% were professional and managerial staff and 40% were skilled workers.

In our interviews, we asked manufacturers what critical skills they need in their businesses and how they find them. Key informants pointed to a shortage of critical skills in mechanical and electrical engineering, quality control, and information technology. Some mentioned a shortage of skilled artisans and lack of craftsmanship. As a result, many companies are dependent on skilled expatriate labor. They bring in people from South Africa, India, Togo, and other places. The *2003 Industrial Census* reported that 9.5% of manufacturing employees were non-Ghanaian but it does not classify them by their skill levels. It is common for companies to fly in foreign technicians, at high cost, to install and repair equipment. Many companies run in-house training courses but they also send their people for specialized training offered by regulators and business associations. However, some key informants expressed disappointment at the unwillingness of employees to learn or expand their horizons. Others noted that there is a willingness to learn, but the cost of training can be high when you factor in the large number employees that need training and expenditures on per diem allowances, food, and transportation. They noted that the educational system does not equip graduates with the skills needed by employers.

Kenya and Vietnam are used as comparators for Ghana in this report. The three countries are all lower-middle-income economies. Economic profiles for the three countries are shown in Table 4. Kenya is the leading manufacturing economy in East Africa and Vietnam is emerging as a major manufacturing center in East Asia.

Ghana performs favorably in the World Bank's *Doing Business Ranking* (DBR). It placed 70 out of 189 countries in the 2015 DBR, compared to 78 for Vietnam and 136 for Kenya. However, Ghana's manufacturing sector faces significant business environment challenges, as evidenced in the World Bank's *Enterprise Survey 2014*. A much higher proportion of manufacturing firms in Ghana consider tax rates, electricity, access to finance, customs and trade regulations, and corruption as major constraints, compared to their counterparts in Kenya and Vietnam. For example, 73% of manufacturing firms in Ghana consider electricity a major constraint compared to 37% in Kenya and 11% in Vietnam; 58% consider access to finance as a major constraint compared to 24% in Kenya and 9% in Vietnam; and 42% consider corruption is a major constraint compared to 26% in Kenya and 5% in Vietnam (Table 5).

The manufacturing sector in Ghana is domestic oriented but heavily dependent on imported inputs. Note that import dependence is not necessarily a problem; however, the manufacturing sector should export sufficiently to at least cover a substantial share of its imports. According to the *Enterprise Survey*, manufacturers in Ghana earn almost 90% of total sales from the domestic market. Just over 25% of the firms engage in

exports; i.e., earn at least 1% of total sales from exports. Only 11% have internationally recognized certification. And almost 50% of total inputs are imported. Ghana's manufacturers perform less favorably in all these measures compared to their counterparts in Kenya and Vietnam (Table 5). In particular, manufacturers in Kenya are highly export oriented and less dependent on imported inputs.

Ghana competes in the global economy using primarily unskilled labor and natural resources. The World Economic Forum's *Global Competitiveness Index* (GCI) provides a gauge on the dynamism of the manufacturing sector relative to the comparators. For the period 2014–2015, Ghana ranked 111 out of 144 countries in the GCI compared to 90 for Kenya and 68 for Vietnam. Ghana lags behind Kenya and Vietnam because it performs worse on GCI components, such as infrastructure, macroeconomic conditions, education and training, and labor market conditions (Table 6). Regarding skills, the quality of the education system and the extent of staff training in Ghana are assessed to be lower than Kenya. The labor market in Ghana performs poorly and exhibits considerable rigidity. Ghana ranked 137 on the GCI for flexibility of wage determination while Kenya ranked 69. Redundancy costs average about 6.5 weeks of salary in Kenya compared to 50 weeks in Ghana.

Ghana's manufacturing firms have operated in a particularly difficult business environment during the last few years. The persistent power crisis compels them to use high cost back-up generators to run their production operations. According to the *Enterprise Survey*, losses from electricity outages amounted to 13% of annual sales for Ghanaian manufacturers, compared to 6% in Kenya and 1.3% in Vietnam. Ghanaian manufacturers generated 10% of their electricity from generators compared to 7% in Kenya and 3% in Vietnam. And capacity utilization in manufacturing is about 65%, compared to 72% in Kenya and 77% in Vietnam. Persistent budget deficits and government's heavy borrowing on domestic financial markets, as well as persistent trade and current account deficits that put pressure on the exchange rate contribute to chronic macroeconomic instability. On the GCI, Ghana ranked 140 and 141, respectively, on government budget balance and inflation. In 2014, the Ghana cedi depreciated against US dollar by 26.5%, government budget deficit was about 10% of GDP, and inflation was 17% in November.

### **3. Ghana's Manufacturing Potential**

The *Ghana Economic Transformation Case Study*, an ACET working paper, identifies products and services that can drive Ghana's economic transformation. The study used several approaches to identify the most promising products and services that can make significant impact on Ghana's foreign trade. To identify opportunities in the manufacturing sector, it is essential to: 1) examine what export-oriented free zones companies and foreign direct investors are doing; 2) analyze export data for products in which Ghana has strong comparative advantage; and 3) review Ghana's productive structure to identify high-value products that it can transition into using technologies and skills similar to those currently deployed in already successful product lines. Some of this analysis can be technical and so the details will not be presented here. Instead, we report on the results in ACET (2012) and World Bank (2013).

Examination of free zones investments shows that cocoa processing is a leading sector. It has attracted over US\$280 million in investments from multinational processors, including Barry Callebaut, Cargill, and ADM. Ghanaian owned Cocoa Processing Company, Niche Cocoa Industry, and Plot Enterprise have also made major investments in the sector. Food and agro-processing has attracted over US\$116 million. Free zones investors have sunk capacity into processing fruits, nuts, fish, edible oils, wood, and textile/garments. Priority sectors for the Ghana Free Zones Board (GFZB) include food and agro-processing, textile/garments, fish processing, pharmaceuticals, and assembly of semi-finished products. Similarly, the focus of investment promotion for the Ghana Investment Promotion Centre (GIPC) includes food and agro-processing, textiles and garments, and pharmaceuticals and drugs. Manufacturing is listed as a targeted priority sector by GIPC.

Analysis of export data shows that Ghana has a comparative advantage in many product categories other than the traditional exports of cocoa, gold, timber, and (now) crude oil. However, it would not be worthwhile to sink capacity into any product category if it cannot significantly raise incomes. Thus, proposed products should have high income content and be more sophisticated than what is currently being exported. Increasing the share of high-income goods in the export basket helps to accelerate economic transformation. The potential involves supplying high-income, strong comparative advantage products to regional and global markets. Manufacturing sub-sectors that meet these two criteria include cocoa processing, wood processing, aluminum products, palm oil, food and agro-processing, and fish processing (ACET 2012). However, wood processing has to address sustainability issues related to deforestation and illegal logging.

Significant technology, knowledge, and skills are embedded in the manufacturing sub-sectors that capture large shares of manufacturing value added; for example, food and beverages, chemicals, and textiles. These assets can be transferred to manufacture other products within the sub-sector or even beyond. It is also easier to move up in the value chain after mastering related technology and markets. Ghana should look for opportunities to build on existing capacities to expand its manufactured product base. World Bank (2013) analyzed Ghana's production structure and identified chemicals and health-related products, electronic component assembly, construction materials, food processing, and fish processing as promising sectors.

Interviews conducted with stakeholders pointed to opportunities and dynamism in pharmaceuticals manufacturing. It was noted that the emergent petrochemical industry could drive the chemical products sub-sector, including the manufacture of pharmaceuticals. Pharmaceuticals manufacturing is expected to focus on finding solutions to major tropical diseases and infections. Opportunities to develop remedies and medications that tap into local knowledge and herbs remain unexplored.

In summary, opportunities for labor-intensive manufacturing in Ghana include:

- Cocoa processing – to increase export earnings by adding more value to cocoa beans. Ghana is the world’s second leading producer of cocoa and has developed an extensive value chain, extension and quality control system for the product.
- Food and agro-processing – to reduce huge post-harvest losses and add value to Ghana’s horticultural products by preserving and processing them into food products, juices, concentrates, and dehydrated products for domestic and export markets. Opportunities abound for cereals, tropical fruits, nuts, vegetables, and starchy food crops (yams, cassava, and plantains).
- Palm oil – to process oil palm fruit into crude and refined palm oil. Palm oil is widely used in food, detergent and cosmetics manufacturing, chemicals industry, and in the biodiesel sector. With over one million hectares of land suitable for oil palm, there is a great potential to significantly increase palm oil exports to regional and global markets.
- Textiles and garments – to tap into huge local and regional demand for niche African fabrics and designs, and take advantage of preferential access to the USA and other international markets to integrate into global value chains.
- Fish processing – to prepare and preserve fish and manufacture fish products and fish meals. Ghana has excellent fisheries endowment from the Atlantic Ocean, the large Volta Lake, Bui Dam, inland rivers and lagoons, and an emergent aquaculture sector. Opportunity to export preserved and processed fish from the aquaculture segment is huge.
- Aluminum products – to produce aluminum materials for the housing and construction industry, transport industry, and for household products. The industry is expected to be driven by a huge demand for housing and household products by a growing and increasingly urbanized population. Ghana has presence in intermediate and final products segments of the value chain. Opportunity to export to the sub-region keeps growing.
- Pharmaceuticals – to produce affordable off-patent drugs and capitalize on local knowledge and herbs to develop remedies and medication for major tropical diseases and infections.
- Component assembly – to capitalize on the abundance of semi-skilled labor to assemble semi-finished products into consumer goods, tools, and spare parts for domestic and regional markets.

## 4. Legal and Policy Environment

The Ministry of Trade and Industry (MOTI) is responsible for formulating and implementing policy for the industrial sector, including manufacturing, and for coordinating and monitoring the implementation of private sector programs and activities. Implementing agencies for MOTI include Ghana Standards Authority (GSA), National Board for Small Scale Industries, and Ghana Export Promotion Authority. MOTI is also responsible for Export Trade, the Agriculture and Industrial Development Fund (EDAIF), and several companies, including GIHOC Distilleries, Ayensu Starch, and Northern Star Tomato.

The key documents MOTI uses to guide the development of the manufacturing sector are Ghana Industrial Policy (2010) and Industrial Policy Support Program (2011–2015). The objectives of Ghana Industrial Policy (2010) include expanding the manufacturing sector, promoting agro-based industrial development, and increasing technological capacity. Ghana Industrial Policy (2010) recognizes the need to improve the raw material base, technology, skills, finance, standards, innovation and market access, as well as the need to incentivize the private sector to grow the manufacturing sector, but it does not articulate how this will be done. The Industrial Policy Support Program (2011–2015) is positioned as an implementation document for industrial policy but it is also short on specifics, timelines, and funding requirements and sources.

The Office of the President is implementing another program, Private Sector Development Strategy II (PSDS II). PSDS II is supposed to champion business environment reforms, access to credit, and manufacturing cluster formation for wood processing, agro-processing, and spare parts manufacturing. PSDS II is not captured within a legal framework but it was intended to be a focal point for private sector support from development partners. Interviews with key informants revealed that funding from development partners for PSDS II has stalled because of lack of clarity about its governance and its relationship to MOTI.

### 4.1 Ongoing Initiatives

Emerging and ongoing initiatives highlighted by key informants concern the development of value chains for local raw materials, EDAIF funding, quality standards for imported goods, and investment promotion.

Processing of agricultural produce is usually hampered by the difficulty and high cost of acquiring and delivering raw materials from dispersed smallholder farmers in rural areas to manufacturers who are mostly located in urban areas. Key informants disclosed that MOTI is collaborating with the Ministry of Food and Agriculture to develop a poultry value chain. The poultry value chain program would support hub farmers each with 10,000 or more birds linked to out-grower farmers with 1,000 to 5,000 birds each. The poultry farmers would be provided with technical assistance to ensure that they produce a regular supply of age- and weight-appropriate poultry for

processing. EDAIF is funding the poultry value chain program, supporting farmers and selected processors.

A related value chain initiative is fully private-sector-led but in response to government incentive. Customs and Excise Act, 2012 (Act 855) offers excise duty concession for breweries using local raw materials in their products. This has led to the breweries supporting the development of a value chain for maize, sorghum, and cassava. A dynamic market and value chain consisting of numerous farmers, aggregators, processors, warehouses, and financial institutions has emerged to supply large volumes of graded local ingredients to breweries. The response has been phenomenal. The project has impacted over 16,300 farmers and families. An integral part of this development is a grains value chain and regulated warehouse receipting system organized by Ghana Grains Council (GCC), a private sector initiative funded by USAID. The warehouse receipt system allows farmers to deposit graded grains (maize, rice, soya, etc.) into GCC certified warehouses and transfer ownership without physically delivering the product to the buyer. This has facilitated the aggregation of graded grains in the value chain.

The Export Trade, Agriculture and Industrial Development Fund was initially set up to finance the development and promotion of non-traditional exports, but the EDAIF Act, 2011(Act 823) has expanded its mandate to include the provision of financial resources for the promotion and development of agriculture and agro-processing. EDAIF is funded through a levy of 0.5 percent of the cost, insurance, and freight value of imports of non-petroleum products, and it provides finance on concessionary terms to beneficiaries. Because EDAIF has a proven funding source, it accumulates significant financial resources and has become a major source of financing for export-oriented manufacturers and agro-processors. For example, in August 2014, EDAIF provided funding of US\$10 million to two pharmaceutical companies.

The Ghana Standards Authority (GSA) deferred an October 2014 implementation of the Ghana Conformity Assessment Program (G-CAP) to enable further stakeholder consultations and sensitization. The objective of G-CAP is to ensure that products imported into Ghana are of the required quality to protect public health, safety, and the environment. In particular, G-CAP is intended to prevent importation of unsafe, sub-standard, or counterfeit goods, and eliminate the dumping of non-conforming products onto the domestic market. G-CAP would require that products to be imported into Ghana meet Ghana standards or approved equivalents before they can be exported. G-CAP is a public-private partnership between GSA and SGS, a multinational inspection and verification company.

G-CAP implementation has stalled due to opposition by traders who think it would bring back the detested pre-inspection system. GSA says traders would only need a certificate from their suppliers that imported goods meet the approved standard, not a pre-inspection. GSA has noted that many countries—including Nigeria, Ivory Coast, and Kenya—employ a conformity system for imports. A key informant from the manufacturing sector fully supports G-CAP and believes it would help curb importation of sub-quality goods that compete unfairly against locally manufactured products. For example, an importer would not be permitted to bring into Ghana electrical cables that do not meet or exceed the standards set for domestic manufacturers of electrical cables.

The Ghana Investment Promotion Centre (GIPC) is the government agency responsible for promoting and facilitating investment in Ghana. The new GIPC Act, 2013 (Act 865) is intended to make GIPC a one-stop-shop for all investments into the country, including petroleum and mining. Both foreign and Ghanaian investors must register with GIPC in order to take advantage of the benefits and incentives. However, foreign owned businesses must register with GIPC before they can commence operations. The new law extends the list of activities reserved exclusively for Ghanaians to include, for example, production, supply, and retail of sachet water and retail of pharmaceutical products. In addition, minimum capital requirements have been raised for wholly owned foreign ventures; US\$1,000,000 minimum for retail trading and US\$500,000 minimum for other sectors, except manufacturing, where there is no minimum capital requirement. For joint venture with Ghanaians, the foreign investor must invest US\$200,000 minimum and acquire no more than 70% of the equity.

Many stakeholders wonder about the efficacy of the high capital requirement in the GIPC Act. To put Ghana's minimum capital requirement in perspective, a person willing to invest US\$1,000,000 in the USA is eligible for an immigrant investor visa; the threshold is US\$500,000 for high unemployment and rural areas. The waiver of minimum capital requirements for manufacturing creates an adverse selection problem. There is a high risk that low-grade investment would be directed into, or masquerade as, manufacturing. It remains to be seen whether GIPC would be able to monitor and prevent abuse of the facility.

## 5. Key Issues and Challenges for Manufacturing in Ghana

Many of the issues and challenges for manufacturing in Ghana have been flagged in the World Bank's *Doing Business Rankings*, The World Economic Forum's *Global Competitiveness Index*, the World Bank's *Enterprise Survey*, and in the Association of Ghana Industries' (AGI) quarterly *Business Barometer* reports. This report assessed key issues and challenges by interviewing manufacturers, business associations, and government agencies. Each key informant was asked to respond to the following two questions. (1) What do you consider to be the key issues and challenges for light manufacturing companies in Ghana? (2) What can the private sector and/or government do to address these challenges? Five key issues and challenges emerged from the interviews:

### 1. Competition from Imported Goods

Huge volumes of products that are manufactured in Ghana are also imported into the country. Most of these imports are cheaper and some are of higher quality. Some of the imports are cheaper because they are either used goods (as in apparel) or lower quality goods (as in lower gauge electrical cables or roofing sheets); others are cheaper because the exporters obtain subsidies from their governments (as in China's export tax rebates). For the same quality products, some Ghana-made products are more expensive because the manufacturers are inefficient (old technology, over-staffing, limited economies of scale, limited skills, or high cost inputs and taxes). It is important

to determine the factors behind the lack of competitiveness for different categories of Ghana-made goods and develop appropriate policies and countervailing measures to level the playing field and stimulate the growth of the manufacturing sector.

## 2. Excessive Taxes, Levies, and Fees

Ghanaian manufacturers are heavily dependent on imported materials and parts but are heavily taxed on these inputs. The cumulative effect of the different levies and taxes imposed on imported items can be large. For a typical consignment, these charges include import duties (0, 5, 10 or 20% of the value), import VAT (15%) and NHIL (2.5%), processing fee (1%), ECOWAS levy (0.5%), Export development and investment levy (0.5%), destination inspection fee (1%), and GCNet charge (0.4%). These levies and taxes can range from 20.9% to 40.9% of the item's value. Some items also attract additional excise duty (25%) and environmental levy (20%), as well as a recently introduced special import levy (1–2%) and national fiscal stabilization levy (5%). In addition, key informants mentioned that payment of unofficial charges is common at the ports. According to USAID (2010), unofficial charges paid to clear a 20-foot container from Tema port averaged US\$55.60. While most plant and processing equipment incur zero import duty, the impact of VAT and NHIL can be significant on high value equipment. Free zones companies are exempt from paying duties and taxes on imported materials and parts. There is also a duty claw back scheme where import duty paid on imported materials would be refunded when the manufacturer exports the finished product containing the materials.

Corporate tax rate is 25% but GIPC registered companies pay reduced tax rates depending on the sector and location of the business; they also enjoy tax holidays of between five to ten years. Free zones companies enjoy a 10-year tax holiday and 8% corporate tax thereafter. In addition to corporate taxes, municipal and district assemblies impose licensing fees and various levies on businesses located within their territory. These levies can be contentious since they are not backed by law and are imposed arbitrarily and unilaterally by the assemblies to raise revenue. Key informants mentioned an emerging phenomenon where the assemblies are trying to levy fees on vehicles with company logos because they classify them as moving advertising billboards. Environmental Protection Agency, Fire Service and Factory Inspectorate also visit manufacturing premises, conduct inspections and impose various charges for annual certificates and various violations. Key informants observed that manufacturers are harassed by assemblies and government agencies because they have visible and tangible assets that make them easy targets for revenue seeking officials.

## 3. Energy Crisis and Utility Pricing

Ghana has experienced a prolonged energy crisis, which has led to extensive electricity rationing and blackouts. There is an ongoing energy rationing where the electricity company switches off power to different areas according to a supposed schedule. It is called load shedding. Load shedding has compounded the problem of manufacturers who have always endured electricity shortages and unreliable supply. Now more manufacturers need to acquire generators for backup power. Some manufacturers have reduced their operating hours and reduced their staff as a result of load shedding. A key

informant affirmed that capacity utilization at manufacturing establishments is between 10% and 60%. Load shedding, high cost generator usage, increases in electricity and fuel prices, as well as low capacity utilization have raised the production cost of many manufacturers, adversely impacting the competitiveness of their products against imported goods.

A related issue raised by key informants concerns the terms under which electricity is distributed to manufacturers compared to consumers. It was noted that current policies do not recognize the special economic role of manufacturers and business in general. They provide employment and consume larger quantities of electricity than residential users. On the issue of electricity disruptions, they expected that load shedding and electricity outages could be better managed to ensure minimal disruption to businesses. Manufacturers should also be cheaper to service since they generally congregate in designated industrial areas. In addition, many questioned why utilities tariffs should be higher for industry than for residential users. For most products, high-volume users pay a lower cost per unit than low volume users, but this doesn't appear to be the case for electricity in Ghana. In 2014, industry to residential tariff rate in Ghana was about 150% compared to 75% in Kenya.

#### 4. Funding and Interest Rates

Key informants recounted the lack of long-term capital for manufacturers. Many manufacturers see opportunities for expansion in their business but cannot raise affordable capital to make the necessary investment. They welcomed EDAIF's leadership role in providing capital for eligible manufacturers, but they also acknowledged that EDAIF is not enough and more institutions are needed to provide alternative sources of funding. They cautioned that EDAIF may be over-stretched and could end up under political pressure and lobbying. It was noted that EDAIF is able to perform its functions because it has a well-defined source of predictable and consistent funding; it does not depend on government subvention or the consolidated funds. It was suggested that a similar revenue model (namely, x% of something) be designed for other agencies such as the Venture Capital Fund and the National Board for Small Scale Industries.

Another finance-related issue concerns high interest rates on loans. According to the Association of Ghana Industries (AGI), interest rate on loans from commercial banks ranges from 35% to 40% while micro-finance companies charges range from 60% to 80%.

#### 5. Lack of Government Commitment

Most of the key informants felt government lacks commitment to manufacturing. The challenges of the manufacturing sector have been discussed in many forums but government has done nothing about it, only paying lip service. In particular, AGI has made numerous presentations on behalf of manufacturers, but not much has come out of it. Some wondered how the proposed Ghana Transformation Forum would be different from other talk shops. Some informants claimed that government does not seem to appreciate or understand the strategic role manufacturing plays in national

development as an employment generator, a major source of tax revenue, and a source of technological capacity.

Some key informants complained that government does not use its buying power to support Ghanaian manufacturers, citing the recent revelation that the redesigned Parliament was furnished with imported Chinese furniture. They also noted that some government policies undermine the development and growth of the manufacturing sector. For example, allowing unfettered importation of used clothes has destroyed the textile industry, just as used vehicle spare parts imports reduce the incentives for local manufacturing of vehicle parts.

## 6. Proposed Solutions

Comprehensive analysis and targeted policies would be required to fully address the issues and challenges identified in this report. The solutions proposed in the table below are intended to stimulate discussion and facilitate the development of implementable time-bound policies and programs to help develop and grow the manufacturing sector in Ghana.

<i>Issue or Challenge</i>	<i>Proposed Solutions</i>
<b>Competition from imported goods</b>	<p>Provide incentives to encourage manufacturers to replace obsolete equipment and modernize production processes.</p> <p>Provide skills development for targeted manufacturing occupations.</p> <p>Ensure that imported goods meet or exceed quality standards set for Ghana-made goods in the same product category.</p> <p>Identify imported goods that benefit from unfair trading practices or subsidies and impose countervailing measures to level the playing field for Ghana-made goods.</p> <p>Promote made-in-Ghana products, sensitizing Ghanaians to employment and income implications of buying made-in-Ghana goods</p>
<b>Excessive duties, taxes, levies, and fees</b>	<p>Benchmark duties, taxes, levies, and fees charged on imported materials and parts to those prevailing for manufacturers in selected comparator countries.</p> <p>Review and rationalize fees and levies charged by municipal and district assemblies and other MDAs, and require stakeholder consultations and oversight by MOTI to set and approve fees.</p>
<b>Energy crisis and utility pricing</b>	<p>Separate manufacturers from consumers in the electricity infrastructure to enable provision of quality electricity supply to manufacturers and other productive sectors.</p> <p>Cluster manufacturers and ancillary service providers in industrial villages to facilitate economical supply of energy, utilities and infrastructure.</p> <p>Provide incentives to encourage manufacturers to convert to cheaper energy sources, such as LPG and solar energy.</p> <p>Review utility tariffs to ensure that rates favor manufacturers and other</p>

	productive sectors, adopting best practices from selected comparator countries.
<b>Funding and interest rate</b>	<p>Provide long-term capital to support investment in plants and equipment by manufacturers by sustainably increasing the capital base of EDAIF, Venture Capital Fund, and National Board for Small Scale Industries (NBSSI).</p> <p>Transform some state-owned banks into development banks to address capital needs of manufacturing and selected economic sectors.</p> <p>Impose fiscal discipline and limit government borrowing on domestic financial market to create more room for bank lending to the private sector.</p> <p>Task the Bank of Ghana to lead the financial institutions to develop innovative and cost-effective financial instruments to address the credit needs of the manufacturing sector.</p>
<b>Lack of government commitment</b>	<p>Talk less and do more.</p> <p>Require MDAs that use public funds for procurement to buy Ghana-made goods in product categories where there is significant local productive capacity.</p> <p>Discourage importation of used goods in product categories where there is significant local manufacturing capacity.</p> <p>Promote development of value chains for locally produced raw materials and spare parts to develop a sustainable local supplier base for the manufacturing sector.</p> <p>Engage with business and economic experts to properly assess the impact of policies on manufacturing and other productive sectors.</p> <p>Engage with business associations, particularly the AGI, to understand the challenges facing the manufacturing sector and work with them to develop solutions.</p> <p>Aggressively pursue and implement agreed targets and recommendations from the GTF.</p>

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## Appendix

### Tables

**Table 1: Sector Value Added (% of GDP), Ghana**

Sector	2006	2008	2010	2012	2013
Agriculture	30.40	30.96	29.75	22.96	21.96
Industry	20.80	20.42	19.12	28.64	28.57
Manufacturing	10.24	7.94	6.78	6.40	5.81
Oil			0.40	7.80	8.10
Services	48.80	48.61	51.13	48.40	49.47
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Sources: World Development Indicators, World Bank and Ghana Statistical Service

**Table 2: Manufacturing Value Added (millions of US\$), Ghana**

Manufacturing Sub-sector	ISIC	2006	2008	2010	2012	2013	% of 2013
Food products and beverages	15	597.75	646.54	617.32	776.59	812.07	30.04
Paper and paper products	21	378.46	409.36	390.85	491.70	514.16	19.02
Chemicals and chemical products	24	256.45	277.38	264.84	333.17	348.39	12.89
Other non-metallic mineral products	26	184.71	199.79	190.75	239.97	250.93	9.28
Textiles	17	180.31	195.03	186.21	234.26	244.96	9.06
Basic metals	27	89.53	96.83	92.46	116.31	121.62	4.50
Furniture, machinery, nec	36	72.67	78.60	75.05	94.41	98.73	3.65
Coke...refined petroleum	23	58.80	63.60	60.73	76.39	79.88	2.96
Rubber and plastic products	25	55.63	60.18	57.46	72.28	75.58	2.80
Printing and reproduction	22	27.77	30.03	28.68	36.07	37.72	1.40
Machinery and equipment, nec	29	25.83	27.94	26.67	33.56	35.09	1.30
Wood products except furniture	20	20.30	21.96	20.97	26.38	27.58	1.02
Fabricated metal products	28	18.40	19.91	19.01	23.91	25.00	0.92
Tanning, luggage, and footwear	19	9.37	10.13	9.67	12.17	12.72	0.47

Motor vehicles and trailers	34	7.06	7.63	7.29	9.17	9.59	0.35
Electrical machinery, nec	31	6.68	7.23	6.90	8.68	9.08	0.34
<b>Total</b>		<b>1989.72</b>	<b>2152.14</b>	<b>2054.86</b>	<b>2585.04</b>	<b>2703.12</b>	<b>100.00</b>

Calculated from World Bank and Ghana Statistical Service data

**Table 3: Manufacturing Establishments by Size and Employment, Ghana**

Size by Employees	Establishments		Employees	
	Number	Percent	Number	Percent
Micro (1-4)	14,352	55.0	35,834	14.7
Small (5-19)	10,256	39.3	79,766	32.8
Medium (20-99)	1,229	4.7	45,213	18.6
Large (over 100)	251	1.0	82,703	34.0
<b>Total</b>	<b>26,088</b>	<b>100</b>	<b>243,516</b>	<b>100</b>

Source: Ghana Industrial Census 2003

**Table 4: Country Profiles, 2013**

	Ghana	Kenya	Vietnam
Population (millions)	25.00	44.35	89.71
GNI per capita (current US\$)	1858	1246	1911
GDP (current US\$, billions)	48.14	55.24	171.39
MVA (% of GDP)	5.81	11.72	17.49
GDP growth (annual %)	7.13	5.74	5.42
MVA growth (annual %)	0.60	5.91	7.44

Source: World Development Indicators, World Bank, 2014

**Table 5: Comparison of Manufacturing Firms in Ghana, Kenya, and Vietnam**

Characteristic	Ghana (2013)	Kenya (2013)	Vietnam (2009)
Internationally recognized quality certification (% firms)	11.0	33.8	16.7
Capacity utilization (%)	65.8	72.2	76.7
Domestic sales as proportion of total sales (%)	88.6	70.5	75.2
Export at least 1% of sales (% of firms)	25.8	49.8	42.1
Proportion of total inputs of foreign origin (%)	47.7	26.9	39.7
Losses due to electrical outages (% of annual sales)	12.9	6.0	1.3
Proportion of electricity from a generator (%)	9.6	6.9	2.9
Tax rate as a major constraint (% firms)	48.6	24.0	5.6
Electricity as a major constraint (% of firms)	72.7	36.6	11.3
Access to finance as a major constraint (% of firms)	58.4	23.6	9.4
Customs and trade regulations as a major constraint (% of firms)	21.7	20.4	7.9
Corruption as a major constraint (% of firms)	41.5	26.3	4.7

Number of manufacturing firms: Ghana = 377, Kenya = 414, Vietnam = 789

Source: Enterprise Surveys, World Bank, 2014

**Table 6: Global Competitiveness Rankings (out of 144 countries)**

<b>Global Competitiveness Index GCI 2014-2015</b>	<b>Ghana</b>	<b>Kenya</b>	<b>Vietnam</b>
Overall Ranking	111	90	68
Infrastructure	108	96	81
Macroeconomic Environment	133	126	75
Higher Education and Training	106	95	96
Labor Market Efficiency	98	25	49

Source: World Economic Forum, 2014

### Key Informants Interviewed

<b>Organization</b>	<b>Contact Person</b>	<b>Designation</b>
Ministry of Trade and Industry	Mr. Kofi Nuhu	Director, Manufacturing Division
Ministry of Trade and Industry	Mr. Robert Tandor	Ag Director, Standards Division
Ministry of Trade and Industry	Mr. Papa Kow Bartels	Director, Logistics and Value Chain
Factory Inspectorate	Mr. Fred Ohene Mensah	Ag. Chief
Ghana Statistical Service	Mr. Afram Asuo	Ag. Director, Economic Statistics
Kama Group of Companies	Dr Michael Agyekum Addo	CEO
Office of the President	Mr Joe, Tackie	CEO, Private Sector Development Strategy II
NBSSI	Mr. Saeed Brobbey	Ag Dep Executive Secretary
Danadams Pharmaceuticals Industry	Dr. Yaw Adu Gyamfi	CEO
Ministry of Foreign Affairs and Regional Integration	Mr. Edwin Adjei	Director, PPME Bureau
Ghana Investment Promotion Centre	Dr. Richard Agyei	Principal Investment Promotion Officer, Research and Business Development
Ghana Investment Promotion Centre	Mr. Kwaku Anane	Senior Investment Promotion Officer, Investor Services
Ghana Standards Authority	Mrs. Elizabeth Adetola	Dep Exec Director (Core Services)
Ghana Standards Authority	Mr. Emmanuel Kwa-Kofi	Director, Standards Division
Aluworks Limited	Mr. Kwasi Okoh	Managing Director
Cocoa Processing Company	Mr. Frank Asante	R&D Manager
Gratis Foundation	Mr. Emmanuel Asiedu	CEO
Domod Aluminium	Mr. Fred Kwofie	Managing Director
Association of Ghana Industries	Mr. Seth Twum-Akwaboah	Executive Director