



# Local procurement in West Africa

Executive Summary and Support  
Recommendations of BGR Research  
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Ira Olaleye, Eschborn

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## 1. Background and Institutional Context

The Africa Mining Vision (AMV) is Africa's guiding document to economic transformation through utilising its extractive resources. It was adopted by African Heads of States at the February 2009 African Union summit and is highly recognized throughout the continent. The AMV pursues the integration of the mining sector in national economies and development policies – a holistic approach that looks beyond the tax revenues the mining sector can provide. This means that emphasis is placed on issues such as developing local communities that are affected by mining, building industrial linkages and increasing intra-African trade of minerals and mining inputs. If this is achieved, the mining sector will have a lasting effect on African economies, effectively reducing the current dependency on raw material exports in many African mining countries.

On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), the Federal Institute for Geosciences and Natural Resources (BGR) is supporting the African Minerals Development Centre (AMDC). AMDC is the agency mandated with implementation of the AMV under the African Union Commission for Trade and Industry and currently driving a domesticated AMV (Country Mining Vision, CMV) in Ghana. As such, AMDC acts upon request of and in close cooperation with the Ghanaian Government. BGR's contribution to the first CMV phase on 'Value Creation and local Development in the Mining Sector' is the **assessment of the economic potential** and market realities for local procurement focusing on Ghana, and West Africa as a region. The work covers a sample of countries: **Ghana, Burkina Faso, Mali and Côte d'Ivoire**. Ultimately, the work will feed into implementing **practical assistance** in AMDC's member countries.

### Local Procurement Project Overview

Within this BGR work, Kaiser Economic Development Partners assisted with the development of a demand model for West African mining, as well as confirming top local procurement opportunities that can reduce cost or create efficiencies, and understanding the related constraints.

The **demand model** estimates purchasing power of mining companies per country based on publicly reported financial data, and allocates procurement spend to 32 product and service categories. Allocations of percentage spend to each category were tested against available bottom-up procurement data from the region and refined using expert input.

Using secondary research and interviews with supply chain officials, **mining company profiles** were created, detailing issues specific to involving local companies, such as procurement mechanisms and supplier development programs. Building on results from the demand model, inputs from mining companies and secondary research on existing supplier capacity, **ten case studies** were developed to assess potential opportunities for local production. These case studies indicate requirements that could shape support areas to help realise these opportunities.

A **gap analysis** was conducted to identify major constraints to the realisation of the opportunities in the case studies. On that basis **support recommendations** were formulated.

This executive summary outlines findings of the above-mentioned research modules.

## 2. The Procurement Demand Model

The procurement demand model was developed based on expert input on the structure of procurement, as well as analysis of detailed procurement data. The model allows users to **generate spend estimates for 32 demand categories using publicly available financial reporting**.

Currently, the model **covers 2015 data for 27 gold mines in the region across 14 companies in four countries** (Ghana, Burkina Faso, Mali and Côte d'Ivoire) – all of these gold mines were actively producing in 2015. The model could be extended to other companies and commodities where financial reporting is available.

The model therefore offers an **efficient analytical tool that is currently not available** to governments, the mining industry and suppliers. It provides **a breakdown of the annual consumption by country, mine category** (underground vs. open pit, on- vs. off-grid), **individual mine, and operator**.

The application of the model can support more targeted approaches to local content policy, improved information sharing, and lowering investment risk of mining suppliers. It can therefore **assist industrial diversification and investment promotion**, which have been identified in Ghana as key focus areas of mining supplier development going forward.

### Uses and limitations of the model

#### Questions that the model can answer:

- What is the total operational procurement spend by industrial mines in [country]?
- How much of [one of 32 products/services] is bought by operating mines in the region?
- What is the annual operational procurement spend of [mining company] in the region?
- What is spent by all the [open pit/underground/off-grid/on-grid] mines on a category of spend?

#### Examples of how the model could be used:

- Cross-checking submissions against targets in local procurement plans
- Considering the investment viability of FDI – market requirements vs. market share they would need to get to achieve that, either in one country or in the region
- Evaluating whether the investment in supplier development in a product grouping is justified by the size of the opportunity
- Assisting investors through consulting and providing information specific to the investor's product portfolio

#### Limitations of the model:

- It only covers operational spend, not capex or project spend
- It is based on average spend per category, and is therefore not necessarily accurate for detailed analysis of an individual mine, given variations in company operational strategy, technology choices etc.
- It does not extrapolate to cover all mining demand in a country or the region
- It does not forecast future demand based on projects that are not yet in operations, or mine closures

One overall output is shown below – the **total procurement spend (US\$2.66 bn in 2015)** across the four focus countries, split by the **top categories** (see graph below).



As the graph indicates, there are only a limited number of products/product groups with significant scale that are suitable for the development of local industrial capacity, e.g. reagents, grinding media and lime.

The results underscore the need for research and a targeted approach to capitalise on specific product opportunities where there is existing purchasing power.

#### Total procurement spend by top categories, all countries, 2015, US\$m



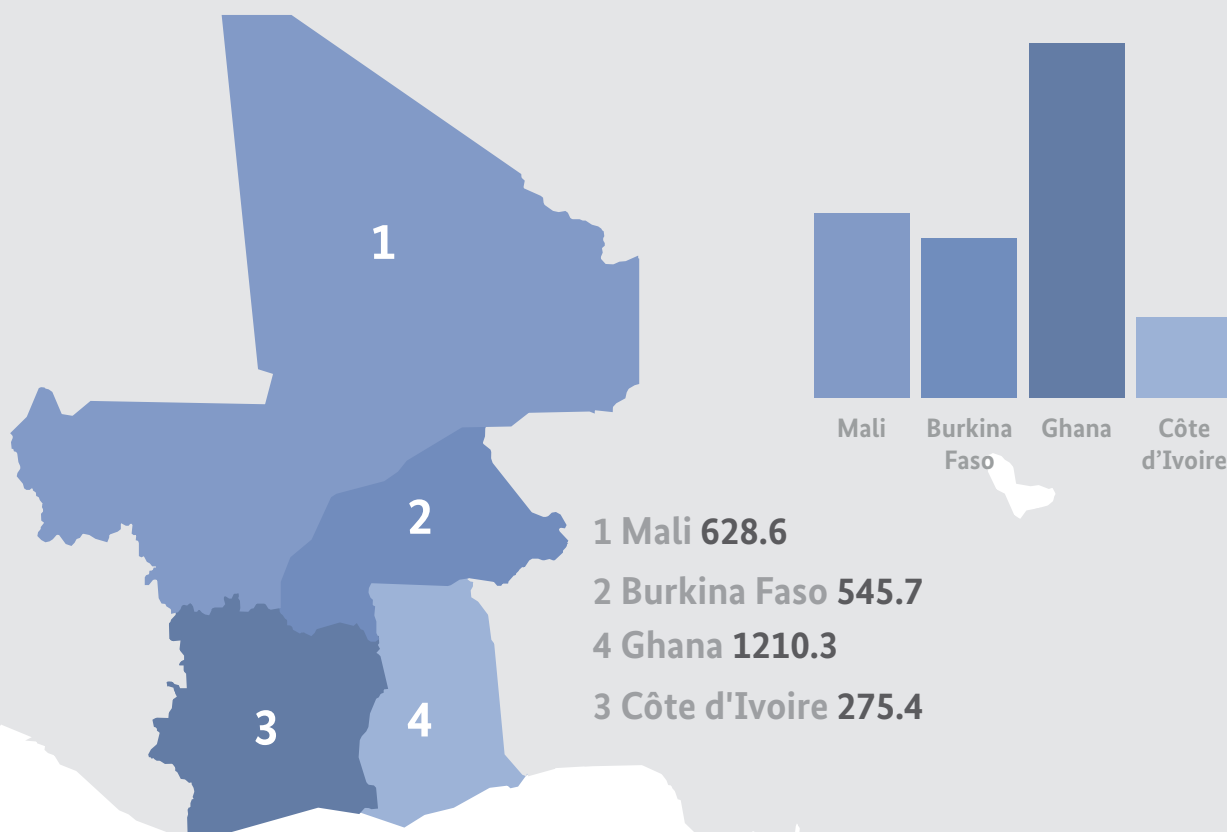
The table below shows a country spend breakdown (US\$m) by type of mine (predominantly underground vs. open pit and electricity supply off vs. on the national grid):

Country	Open pit 		Underground 		Total
	Off-grid	On-grid	Off-grid	On-grid	
Ghana	369.7	652.8	187.9		1 210.3
Mali	282.1		337.9	8.6	628.6
Burkina Faso	545.7				545.7
Côte d'Ivoire		275.4			275.4
<b>Total</b>	<b>1 197.5</b>	<b>928.1</b>	<b>337.9</b>	<b>196.5</b>	<b>2 660.0</b>

This scale needs to be seen in the context of **what portion of this can be captured locally**, and the size relative to country GDP and targets for industrial development; whilst there are some sizeable opportunities, mining-related procurement is unlikely to provide a complete solution to growth targets. For example **Ghana's** total GDP for 2015 was estimated at around US\$38 bn; gold mining total procurement spend **would equate to around 3 per cent of GDP**. Increasing local procurement is therefore not a silver bullet to industrial development. It can provide substantial stimuli, which however requires adequate research to unfold the full potential.

Countries such as Burkina Faso and Côte d'Ivoire could grow their share of the market going forward based on the level of exploration activity and projects under development.

Total spend on mines in US\$m by country, 2015





### 3. Overview of Findings from the Mining Company Profiling

Interviews with mining companies explored their procurement processes, existing supplier onboarding and supplier development initiatives, and where they see opportunities for growth in local procurement that could help to save them money or create operational efficiencies.

Key insights from this research include:

#### a ... Global Supply Chains and Quality Standards often drive decision-making, which may present challenges for local procurement

In most cases, **large and core spend items are centrally procured at a regional or head office level on longer-term contracts**. These often include fuel and process consumables. This can create a tension with the drive for local procurement but in many cases procurement managers can make exemptions to procure locally based on a cheaper price to the required specification from a local supplier, and/or to comply with national regulation.

For core items that are critical to operations, mines are often hesitant to try out untested local suppliers (the cost of down time or stoppages makes this too risky); **joint ventures with international suppliers can help to ensure they can meet technical specifications and production quality and consistency**. Mines can also overcome this by involving technical staff in supplier prequalification, testing out a new supplier on smaller trial contracts and gradually extending scale and technical complexity.

It is more difficult for mines to identify realistic local procurement opportunities in Mali and Burkina than in Ghana and Côte d'Ivoire because of the operating and competitive conditions, and limited levels of industrialisation (there are exceptions such as lime and cement).

#### b ... Local Content Regulation has altered mining company behaviour

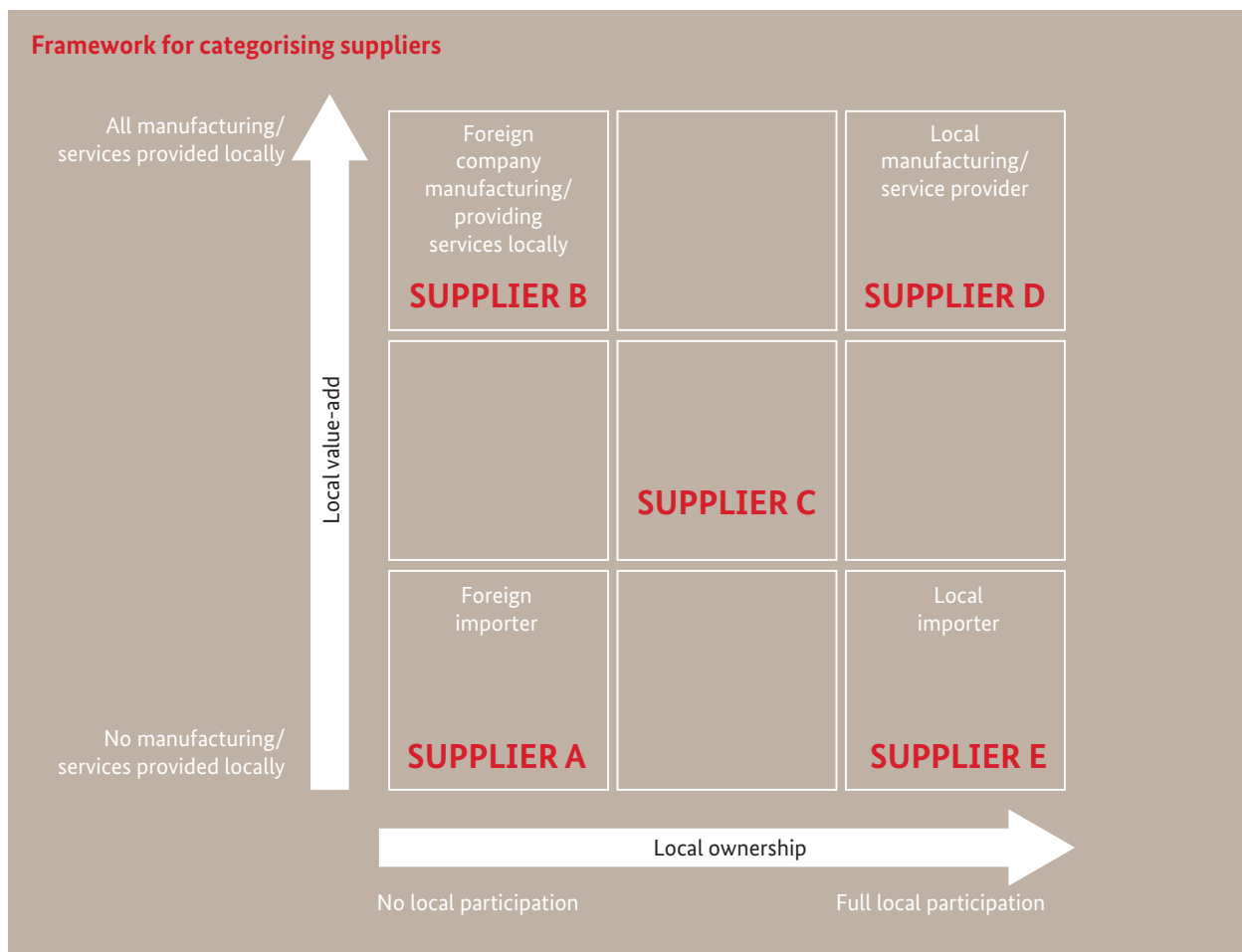
Interviews with mining officials show that correctly designed local content regulation has increased the attention they pay to local procurement. For example, the **local procurement regulatory process** in Ghana – in particular the selection of higher potential opportunities to include on a list, and annual local procurement planning processes – has increased the focus of some mining companies on **more proactively identifying potential suppliers to work with, and improving their planning and reporting**.

#### c ... The emphasis of current supplier development initiatives often limits the scale of impact

Many companies focus on their individual supplier development programmes, directed at micro-SMEs and affected communities, which relates to CSR and gaining a social license to operate; **supplier support related to big ticket items is often conducted on a more ad hoc basis by operational teams** to share information, address technical and quality issues. Similarly, many donors also only focus on micro-SME supplier development.

Companies have different working definitions of 'local', **many currently do not consciously focus on local value-add** (e.g. they may focus on locally registered companies, suppliers where payments are in local currency, or suppliers in affected communities). One approach to understanding these definitions is included in the Practical Guide to Local Procurement in West Africa, see extract below.

Many supplier development programmes are therefore not in line with governments' ambitions to initiate a broader industrialisation from mining. There is an apparent lack of instruments specifically targeted to support the development of a competitive local manufacturing capacity.





## 4. Potential Local Supply Opportunities that could save Costs and Increase Efficiencies

Local procurement opportunities are determined by a range of factors. **Larger scale opportunities** are more likely to yield significant economic benefits in particular in terms of industrial diversification objectives, rather than just micro-SME opportunities which have often been the focus of local procurement initiatives. In some cases, **access to a regional market may be necessary to gain sufficient scale to enable suppliers to compete.**

**Not all items purchased by the mines lend themselves well to local procurement opportunities**, e.g. more complex equipment/parts, and stakeholders may need to moderate their expectations **based on the competitive conditions in a particular country.**

Based on these principles, the model, and interviews with supply chain managers in the region, ten **opportunities** for increased local procurement have been analysed and grouped as follows:

- ▶ **Larger scale** (large volume, bulky consumable items with high capital and technology

requirements): steel balls, lime, explosives, potentially other reagents, fuel and power (also typically on mining company's group contracts/ regional or head-office procurement)

- ▶ **Medium scale:** supply chain & buying houses, geological & environmental services, and lab testing
- ▶ **Smaller opportunities** (more suitable for micro-SMEs and localised/local-local supply, but still requiring compliance with quality standards): uniforms, food

Each of the opportunities is discussed in detail in a separate paper, providing an indication to what may be feasible for local production. It also provides the basis for further investigation through product feasibility studies.

The table below provides an overview of four examples of the larger scale opportunities, including the **scale** and the **support needs**.

Opportunity	Scale and nature of opportunity	Support needs/actions to unlock the opportunity
Steel balls	<ul style="list-style-type: none"> <li>US\$192m spent in 2015</li> <li>In Ghana US\$18m procured from local manufacturers</li> <li>Other countries mostly import</li> <li>Scope to build steel fabrication industry (with wider industrial benefits)</li> </ul>	<ul style="list-style-type: none"> <li>Work with power providers, regulators and industry to resolve power costs and availability</li> <li>Assess mines' willingness to exempt steel balls from group contracts</li> <li>Investigate potential for JV investment and provide investment facilitation (potentially including vertically integrated company that can secure quality steel inputs)</li> </ul>
Lime	<ul style="list-style-type: none"> <li>US\$100m spent in 2015</li> <li>Wide range of other markets</li> <li>Available lime deposits in the region</li> </ul>	<ul style="list-style-type: none"> <li>Build on existing projects and initiatives to overcome remaining quality and cost issues (Ghana and Mali projects)</li> <li>Work with power providers, regulators and industry to resolve power costs and availability</li> <li>Confirm the extent to which hydration of lime is done on mine sites</li> <li>Assess current access to lime deposits</li> <li>Work with mines on detailed technical feasibility study to determine if mining-grade quality lime is achievable</li> </ul>
Explosives	<ul style="list-style-type: none"> <li>US\$183m spent in 2015</li> <li>Although explosives mixing is often already happening on site, scope to extend the chemicals manufacturing industry (with links into other sectors such as fertilisers)</li> </ul>	<ul style="list-style-type: none"> <li>Review explosives regulatory environment in all countries in the region</li> <li>Work with mines to identify potential local logistics firms, including warehousing opportunities</li> <li>Test ability of local firms to supply large explosive firms in West Africa with inputs (chemical production capacity e.g. ammonium nitrate)</li> <li>Investigate mechanisms to consolidate demand from mining companies</li> <li>Promote JVs between international and local firms for explosives services</li> </ul>
Other reagents	<ul style="list-style-type: none"> <li>US\$8.4m of activated carbon imports in 2015</li> <li>US\$17.3m of caustic soda imports</li> <li>Wider market uses and inputs available locally (e.g. coconut husks)</li> </ul>	<ul style="list-style-type: none"> <li>Estimate market size of activated soda and caustic soda in the region for mines and wider applications</li> <li>Complete feasibility studies for the implementation of local production of activated carbon and caustic soda, building on previous research in Ghana</li> <li>Ensure access to regional market</li> <li>Investment facilitation</li> </ul>

## 5. Overall Gaps and Support Recommendations

Given the limited purchasing power of the West African mining sector and the aspiration to develop a world-class and export-oriented supplier industry in Ghana, the assessment of the project team is to focus on “big ticket” items that provide sufficient substance for the development of a locally hosted competitive supplier industry. The following **support** would help to unlock increased procurement for these “big ticket” items in the four countries in the region:

### **a ... Strengthen oversight, technical and coordination capacity of regulators and Chambers of Mines**

Motivation: Most mining regulators and chambers of mines have not historically played a role in local procurement and therefore do not necessarily have competencies related to assessment of opportunities and economic research, supplier development, local procurement communication and reporting.

#### **Actions:**

- ▶ Providing additional short-term specialist human resources
- ▶ Supporting training and capacity-building
- ▶ Assisting with set up of systems to support analysis and reporting e.g. demand modelling, information sharing systems

### **b ... Coordinate and support mining companies to consolidate demand and find ways to localise it in group commodity/contract areas**

Motivation: National or regional demand consolidation may be necessary to unlock local supply and investment, but individual mining companies do not have a mechanism to consolidate procurement; there are numerous operational, financial and legal/regulatory constraints to achieving this (such as managing liabilities and avoiding anti-competitive practices).

#### **Actions:**

- ▶ Expand and update the demand model
- ▶ Work with mining companies' local and global procurement offices to promote exemption from global contracts where feasible
- ▶ Investigate the most workable demand consolidation mechanisms building on previous efforts in Ghana e.g. a central buying office, shared supplier portal and prequalification

### **c ... Enhance local manufacturing capacity, technology transfer, product standards and training through local-international partnerships**

Motivation: Achieving the standards and scale required by mining companies is going to be very difficult for local suppliers in the short-term without some technical support and investment from established foreign suppliers.

#### **Actions:**

- ▶ Market commercially promising procurement opportunities to established international manufacturers (potentially for international-local partnerships)
- ▶ Support deal structuring and facilitate Joint Ventures or partnerships
- ▶ Provide incentives through a supplier development programme focused on the development of mid to high skill industries
- ▶ Explore other partnership models with technical support, e.g. technology licensing, authorised providers



#### d ...Drive integration and coordination across departments and agencies

Motivation: Enhanced coordination is needed to unlock constraints in the investment and operating environment, including power, infrastructure, red tape, etc.

##### Actions:

- ▶ Provide human and technical resources to strengthen existing/foster new alignment and coordination efforts across state entities, utility providers, regulators etc.
- ▶ This might include lobbying resources, brokering agreements and establishing institutional mechanisms
- ▶ For example, in the case of Ghana, strengthening efforts by the Minerals Commission and Chamber of Mines to coordinate with Ministries of Energy, Trade and Industry, GIPC, AGI, Ghana Standards Authority, etc.

#### e ... Push for regional efforts to address cost of intraregional trade and logistics

Motivation: In order to meaningfully open up a regional supply market and create sufficient scale for major investment, it will be necessary to significantly reduce the cost, time and risk of intraregional trade

##### Actions:

- ▶ Research/consolidation of information to identify priority issues that are particularly constraining mining procurement (e.g. specific border crossings, procedures, tariffs, non-tariff barriers related to specific HS Codes, logistics industry regulations)
- ▶ Technical support to enable problem solving, either on a bilateral level or in collaboration with regional and continental organisations (AU, ECOWAS, WAEMU)



