Deepening of Upstream Linkages through the Namibian Mining Industry

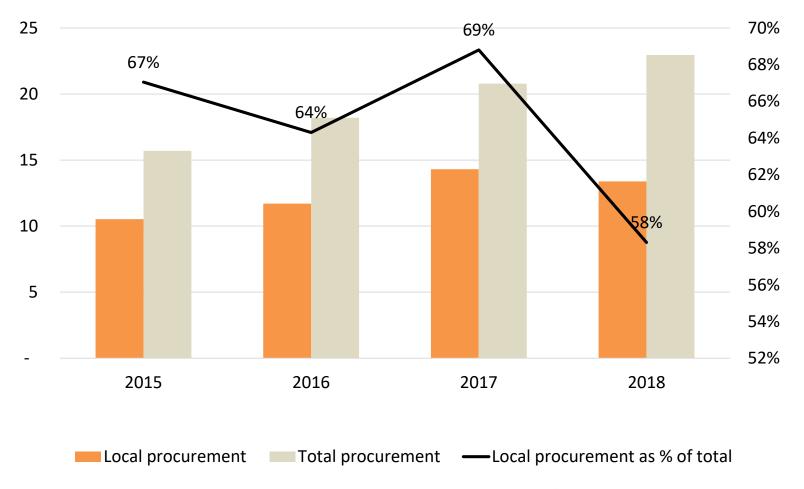
Mining Conference, Windhoek Show Grounds

9th May, 2019

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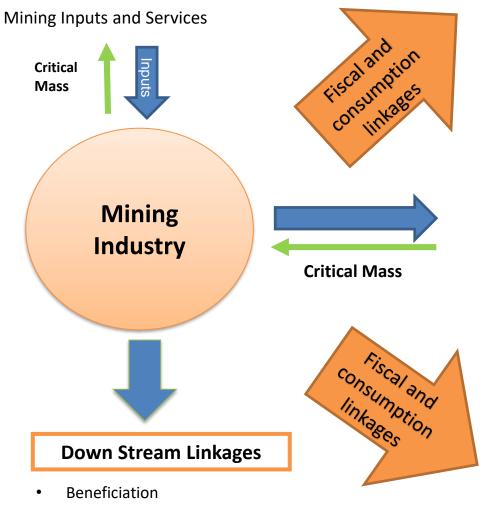
Significance of local spend/procurement by mining





Upstream/backward linkages in the mining industry

Upstream/backward Linkages



Side Stream Linkages

(Government/PPP responsibility)

- Infrastructure
- Rail/Road
- Ports
- Power
- Water
- Skills
- R&D
- Logistics
- Communications
- Financial Services

- Manufacturing
- Chemical
- Pharmaceutical
- Agriculture (agro minerals)
- Construction (Cement)



Importance of upstream linkages

- Direct benefits to surrounding communities, existence of mines creates business opportunities for local suppliers
- Employment creation (indirect employment creation through multipliers)
- Wealth creation
- Skills and technology transfer
- Integration of mining industry with other sectors of the economy, through technology and skills transfer
- Catalyst to develop Namibia's manufacturing base through linkage deepening



Linkage breadth and depth

- Linkage breadth Range of inputs associated with a particular value chain and number of suppliers
- Linkage depth value added component in the linkage/supply chain

In Namibia's mining industry, the supplier profile is evident of a broad supply base, however, there appears to be limited local production of mining inputs (shallow linkage depth)



Classification of suppliers in the mining industry

- Original Equipment Manufacturers (OEMS): Design and manufacture of capital goods (e.g. mining equipment and machinery, as well as heavy vehicles) These companies also provide specialized after-sales services and maintenance. Such companies are typically large, established international corporations.
- **Consumables Input Suppliers:** Consumable input suppliers provide inputs consumed in mining and processing operations on a regular basis.
- **Agents and Distributors:** distribute various mining supply inputs, especially equipment for OEMs and corresponding spares and components
- Suppliers of Auxiliary/Support Services: provide important auxiliary services and inputs to mines such as catering and cleaning
- **Specialised Engineering Services:** This group of firms provides specialized engineering and technical services.
- Component Manufacturers: These firms provide and produce parts and components of equipment.

The mining supply chain in Namibia

Mining Company (Lead Firm)

OEMS

Local subsidiaries owned by international companies

Agents/Distributors of mining equipment and machinery

Provide after sales support, technical, maintenance and engineering services

Also provide components/Spare parts for their equipment

Component Suppliers

locally owned businesses & subsidiaries

Specialised Services (engineering) and Technical Maintenance

Consumable Input Suppliers

Locally owned business and subsidiaries

Some production taking place in Namibia, although this is limited

Component suppliers

Locally owned businesses & some subsidiaries

Spare parts and components distributed locally, some manufacturing and assembly taking place locally

Some value in engineering/technical services

Suppliers of Specialised (engineering) and technical services

Mostly locally owned businesses

Engineering and technical services, maintenance and repair

Suppliers of
Auxiliary/Support
services and inputs

locally owned businesses

Most of the local value is captured in the supply of services, but there is limited local production of physical inputs



Possibilities for deepening in the local mining supply chain?

Heavy Equipment, machinery and vehicles (capital goods)

- Unique requirements by mines

 necessary to source from
 reputable suppliers
- Cost of switching suppliers is high
- Economies of scale challenge
- Limited scope for local suppliers to enter this segment of the supply chain, let alone produce capital goods.

Components and spares

- OEMS have set specifications components, and these are very often sourced from within the OEM.
- South Africa's competitive advantage in production of components
- However, feasibility studies show that establishing a foundry in Namibia would be viable.

Consumables

(Opportunity to increase local production of these goods)

- Demand is existent for consumables, mines require these on a day-to-day basis eg. Chemical reagents.
- There is definite scope for the production of consumables locally
- What is required to unlock this opportunity?



Unlocking Opportunities?

- Supply selection processes not a major constraint these are transparent and equitable
- Supplier development programmes have proved instrumental in cultivating local supply chains (especially for consumables). These, however, very often form part of CSR programmes rather than procurement functions, and not aligned to procurement needs.
- The need for local content policies? case studies have largely shown that local ownership requirements have not been successful in promoting local content.
- Namibia's historical context taken for granted in efforts to deepen and cultivate local supply chains.



Namibia's own success stories



Ohorongo Cement

- Cement made from 100% Namibian ingredients
- Fuels to fire kilns are from locally recycled and de-bushed material, gypsum and iron ore to produce cement are sourced in Namibia and packaging bags are manufactured locally



Sulphuric Acid

- Dundee Precious Metals Tsumeb recently started producing sulphuric acid from harmful sulphur emissions at the smelter.
- This is a major input in the processing of minerals for Rössing and Tschudi, which was previously being imported

Conclusions/way forward

- Upstream linkages through mining in Namibia are shallow limited local production of capital goods, consumables and components.
- A large portion of local value lies in the provision of services. In this regard, Namibia has become an exporter of mining related services.
- Opportunity to further develop (deepen) local supply chain in the production of consumables.
- Align supplier development programmes to procurement needs.
- Further research needed for local content policies, however, these should steer away from restrictive local ownership requirements.
- Further research should also look to include an analysis of suppliers to capture the real economic value of linkages and to provide perspective of challenges experienced on the ground which would give better guidance for industry and policy directives.
- The specific input requirements (goods and services) of the mining sector as a whole need to be understood for suppliers to assess potential business opportunities.



