Abstract: *Copper is the back-bone of the Zambian economy, but despite experiencing more than a decade of booming commodity prices, this has not led to significant transformation of the Zambian economy. More importantly, local suppliers to the mines have to a large extent not benefitted from the boom. To the contrary, they continue to face an increasing stiff competition from foreign-owned suppliers. This policy brief tells the story of the Zambian-owned suppliers to the mines and highlights the challenges they face. In conclusion, the brief offers some suggestions as to how to move forward.*

Introduction: resources and development

Resources have always been linked closely to economic development. Many now affluent countries like Canada and Australia built their riches on exports of primary commodities. However, the exclusive positive link between resources and development was questioned already in the 1970s when it became apparent that terms of trade for primary commodity exporting countries deteriorated. Since then economists pinpointed a numbers of 'bads' such as low economic growth, high inequality, high poverty rates, longer and more intense civil wars etc. that all correlated positively with having plenty of resources. Alongside these discussions a debate on the enclave nature of extractive industries followed.

Since the turn of the millennium, prices for hard and energy commodities have risen fast leading to a renewed discussion of the link between resources and economic development as well as structural transformation. This discussion takes as its point of departure the (lack of) backward and forward linkages from e.g. mining activities leading to enclave economies. Rather than only focusing on the negative consequences of natural resource extraction, however, this renewed debate focuses on how to bring about more and deeper linkages between transnational corporations extracting resources and local suppliers in order to minimise the negative consequences of resource-led development and bring about structural transformation and long-term economic prosperity (see e.g. Morris et al. (2012)).

Copper and development in Zambia

Resources have permeated Zambia's development trajectory: historically artisanal mining characterised large parts of what is now Zambia, then economic development was defined by the activities of the British South African Company, whereupon Roan Selection Trust and Anglo American Corporation owned all big mines at independence about 50 years ago. The Matero reform of the late 1960s gave the Zambian state 51 per cent ownership over the mines while the original owners kept management and marketing contracts for a few years whereupon Zambia Consolidated Copper Mines (ZCCM) took full ownership of all mining activities. This era only lasted to the late 1990s when privatisation led to foreign ownership of all major mining activities in Zambia. The most recent commodity boom has furthered this process even more.

Linked hereto resources have also determined economic development in Zambia. At the time of independence, when copper prices were high, Zambia was among the most affluent countries in sub-Saharan Africa. Approximately 25 years later, after a long term decline in demand for copper and lack of investments in national copper production, Zambia came to be among the poorest non-conflict ridden countries on the continent. Now, after ten years of booming copper prices (but for the 2008-2009 dip), Zambia is fast approaching its aim of being a prosperous middle-income country by 2030. However, if economic growth does not lead to structural transformation, the risk is that Zambia's economy will follow closely the boom and bust of international commodity prices.

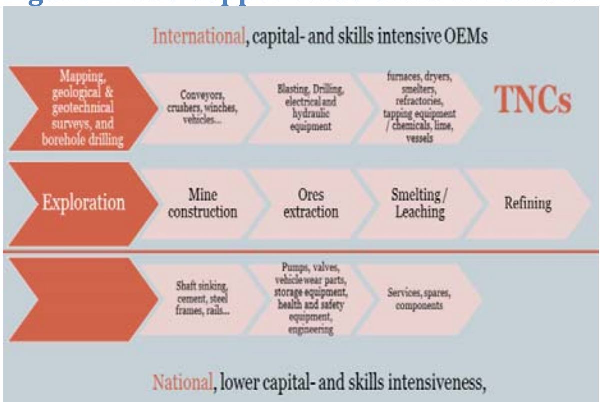
Therefore, it is of utmost importance to further our understanding of how the copper sector affects structural transformation in Zambia. Key here are the linkages and potential spillovers[i] from the big mining corporations to the local sub-suppliers.

This policy brief presents the preliminary findings from the Successful African Firms and Institutional Change (SAFIC) project's survey of 44 Zambian owned suppliers to the mines located in the Copperbelt and 'new' Copperbelt (Northwestern) provinces of Zambia. It focuses on the challenges that small- and medium-scaled Zambian-owned enterprises experience in their quest for success both vis-à-vis the big mining corporations and vis-à-vis the Zambian state[ii].

The Zambian copper value chain

The copper value chain is split up into several processes beginning with the exploration and ending with fabrication and scrap metals. Only parts of this chain are located in Zambia, namely exploration, mine construction, ores extraction, and smelting/leaching. As described above the companies performing these tasks are foreign owned and as depicted in Figure 1 most of the capital- and skills-intensive processes are supplied by transnational Original Equipment Manufacturers (OEMs). Only supplies characterised by low capital and skills intensity are supplied by Zambian-owned firms.

Figure 1: The Copper value chain in Zambia



This has not always been the situation. The centrally ZCCM-governed supply chain, which had a central database of suppliers containing some 400 companies, got split during the privatization process into numerous different supply chains all governed by different principles and providing different possibilities and challenges for local firms supplying to the mines. Simultaneously, the global mining equipment industry has experienced both a tremendous growth and a major reorganisation brought about by mergers of companies from the Global North and emergence of new large-scale mining equipment firms from emerging economies.

The financial crisis of 2008-9 also impacted greatly on the copper sector in Zambia: it forced mining houses to reorganise supply chains to cut costs which amongst others meant that many one-man businesses were forced out; simultaneously many local suppliers sought to diversify their markets targeting agriculture, the industrial sector, construction and transport.

This combination of major reshuffling of the supply chain, large-scale changes in the global mining equipment industry, and periods of boom and bust has put Zambian suppliers to the mines under pressure. They now have to deal with numerous quality standards while simultaneously being faced by stiff competition by global OEMs and other foreign firms registered and located in Zambia.

Zambian suppliers to the mines

Although all the mining companies have quite extensive supplier databases hardly any of these companies are in reality supplying to the mines on a regular basis. As set out above most mines use global OEMs to supply essential inputs for the extraction of ores, refining and processing of copper.

Nonetheless, Zambian-owned suppliers exist. They deal in all kinds of supply to the extraction of ores, refining and processing of copper including supplies of pumps and valves, vehicle wear parts, storage equipment, health and safety equipment, and civil/construction.

While all of the 44 companies surveyed supply to the mines, they differ in terms of sector, number of employees, turnover etc. More than half of the companies were engineering companies specialising in civil engineering and construction. Roughly one-fifth were manufacturing companies (foundry and metal fabrication), almost 15 % were service providers (ICT and other services). The rest were trading and logistic businesses.

The suppliers include both small, medium and large-scale enterprises (number of permanent employees range from 5-523 most of whom are males) and yearly turnover (2012) range from K 200,000 to K3 billion (mean turnover=K938,000).

They also differ in terms of self-perception of performance: Just over half of the surveyed firms perceive themselves to have performed at industry average, 25 per cent perceive themselves to have performed above or well above average, and the rest feel that they have performed below or well below industry average in the financial year before the time of the research interview.

It is thus apparent that the local suppliers to the mines in Zambia constitute a very heterogeneous group where some manage to grow despite the changing institutional environment while others struggle to keep afoot[iii]. Despite these differences they point to same factors explaining or constraining growth. Accordingly, the three most important factors explaining growth of the surveyed firms, in order of importance, are:

- 'The vision and leadership of the owner'
- 'Highly skilled and specialized employees'
- 'Ability to produce at low cost'

In contrast the three most important factors constraining growth of the companies are:

- 'High cost of capital'
- 'Unfair competition from foreign firms'
- 'High input costs'

The high costs of capital is also reflected in 'starting capital' as well as 'operational capital' where only 5 percent of the companies mentioned that formal financial institutions were the most important source of capital when the company was founded (the most important one being personal savings) and only 40 per cent of the companies perceive banks to be the most important source of operational capital (the rest is made up of personal savings, supplier credit, private money lenders, and lease finance).

Despite their differences in terms of sector, size and performance, the surveyed firms stick to very similar strategies in order to be(come) successful (see table 1 below). Most importantly, they adopt a differentiation strategy. Then comes the cost reduction, the niche strategy and the business collaboration strategy.

Table 1: Business strategies

Strategy	Description
Differentiation	Selling products at a premium due to unique product and marketing characteristics
Cost reduction	Being able to sell at lower cost than competitors
Niche	Providing specialized inputs for small market niche
Business collaboration	Collaborate with other firms in industry through industry associations to influence regulations and prices

Even though many local suppliers perceive that competition from foreign firms – especially the OEMs – makes it difficult to succeed, they still see the big mines as their main market. Consequently, 70 per cent of the surveyed firms sell more than half of their products/services to the large-scale mining corporations.

They all by and large supply to the domestic market. Almost 85 per cent of the firms only supply to companies located in Zambia, a few companies venture into neighbouring DRC once in a while and only one company sells more than half of its products outside Zambia.

Only one-fifth of all the firms seek to stay competitive through inventing new processes or products while some 35 per cent upgrade processes or products. Characteristically only a select few companies comply with voluntary standards of the sector.

The institutional environment

The companies do not operate in a vacuum. Rather, they all pointed to the changing institutional environment as the most challenging aspect of doing business in the mining sector in Zambia. They indicated that passing/discarding of specific laws/regulations (minimum wage, NAPSA, and workers compensation) and statutory instruments (SI 33/35) not only affect the suppliers but also the mines themselves. The latter often react by reorganising the supply chain and thereby squeeze out small locally-owned companies.

Related to this, many firms find that government regulation and enforcement is inadequate, that government support is either insufficient or totally lacking and that corruption negatively impacts the business (see table 2). The surveyed firms however also notice that institutions constitute a major driver of firm development. This is especially the case for personal linkages, national government bodies, and business associations.

The Ministry of Mines and Minerals is the most important government authority in relation to the mining sector. Its aim is to promote the growth of the mineral and mining sector in Zambia. It, amongst others, overseas the Mines and Mineral Act and is also responsible for making sure that the mines honour the 'local business development programme' which sets out to develop linkages in the Zambian economy. This, however, is sometimes difficult as local capacity and expertise is not available. As a result, local suppliers seem to lean more on the Ministry of Commerce, Trade and Industry (MCTI) which equally has capacity and expertise constraints. The Chamber of Mines is also of utmost importance, and so are the District Chambers of Commerce and the Zambia Association of Manufacturers. Some respondents lamented the vital role the Association for Mine Suppliers and Contractions would play if it had stronger backing from members as well as government.

Table 2: institutional drivers and barriers for company development and growth

Institutional drivers	Institutional barriers
Personal linkages/ networks	Inadequate government regulation and enforcement
Government bodies	Insufficient/lacking government support
Business associations	Corruption

The lion's share of the companies are members of business associations but surprisingly more than half of the companies state that they do not benefit from any incentives/policies set in motion by these associations, less than 10 percent receive assistance to obtain certification, approximately 15 per cent receive valuable information from the associations, and only one company states that the associations play a mediating role between the large-scale mines and the local suppliers.

Linked hereto, 75% of the companies state that they do not know of any relevant support programs/schemes that could help them develop their companies. This is despite the fact that various programmes do exist such as the 'local content initiative' set in motion by the Government of Zambia and implemented by Zambia Association of Manufacturers, the Citizen Economic Empowerment Commission's Fund, Lumwana Community Business Association's Local Contractors Development programme, training programmes offered by mines etc. in addition to the now-defunct Local suppliers programmes set in motion by the International Finance Corporation.

Policy implications

No doubt copper is the backbone of the Zambian economy. Therefore, it is of utmost importance that the current commodity boom leads to sustained economic prosperity. Key in this regard is the building of linkages from the mines to the local suppliers. This is by no means new knowledge, but in spite of this, it has not happened yet.

In order to build deep and wide linkages companies and institutions have to collaborate. Specifically, the Government of Zambia has to draft an industrial policy that on the one hand reserves certain products and services required by the mines to be supplied locally, and on the other hand builds capacity among the suppliers in order for them to meet the quality standards required by the mines as well as improving reliability, lead times and efficiency. Ideally, this policy should be drafted and implemented by a special unit within the Ministry of Mines and Minerals and/or MCTI that has first-hand experience from the sector.

It is important that all incentives schemes are time-limited, competitive and based strictly on performance. The idea is to pick winners that in the medium-term will be able to compete nationally and regionally – not to support all suppliers.

This policy should also assist business associations play a more active role in providing relevant information to their members, building mutual trust between key stakeholders, and facilitating joint activities. This would enable local suppliers to collaborate more intensively and thereby learn and in the longer run become more competitive.

References

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[i] Following Morrissey (2012) linkages here denote the links in terms of employment, demand for inputs from local producers, and supply of material to local firms that exist between the mining corporation and the local suppliers whereas spillovers point to the learning that may take place if linkages exist. In other words, spillovers refer to the transfer of know what, know how, and know why that is essential in order to build local capabilities.

[ii] The survey only includes suppliers with more than five employees that have been in existence for more than five years and have majority Zambian ownership. The survey is based on a mapping exercise conducted in 2012-2013, which identified 69 companies in Lusaka, Central, Copperbelt and North-Western Provinces.

[iii] It has to be noted that for most firms experiencing growth, the share of the mining sector on their annual turnover is constantly declining whereas their non-mining supply business is rising.