

The drive to increase local procurement in the Mining Sector in Africa: Myth or reality?

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Making the Most of Commodities Programme (MMCP)



**Development
Policy and
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MAKING THE MOST OF COMMODITIES PROGRAMME

Like many other developing economy regions, Africa is benefitting from a sustained boom in commodities prices. Received wisdom has been that commodities production is an inherently enclave activity and that it undermines the viability of industry. The Making the Most of Commodities Programme challenges this negative view of the commodities sector. It's research analyses the determinants of backward and forward linkages, identifying policy responses which will broaden and deepen them. In so doing it contributes both to achieving sustainable growth and the spreading of benefits to a wider population. By incorporating younger researchers, building a research network, and dialogue with policymakers, the MMCP also seeks to build analytical and policy capacity, and to influence policy outcomes.

The MMCP focuses on a diverse range of commodity sectors in a number of African economies, as well as on key infrastructural determinants of effective linkage development. A number of common factors are identified which will increase linkages beneficially and which lend themselves to policy intervention - the role of ownership, the nature and quality of infrastructure, the national system of innovation, spillover of skills to and from the commodities sector, linkages in regional economies and the nature and consistency of policies directed towards the commodities sectors.

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Abstract

There is a continued perception that Africa has not benefited proportionally from the exploitation of its natural resources and that this is perpetuated by the current endemic approach to the development of commercial mining operations. This approach has a direct and continued impact on procurement throughout the life cycle of a mine and serves to, by default, limit the percentage of the procurement potential that is available for exploitation by the local economy. Despite the obvious potential that such commercial developments could afford for local revenue generation and capacity building, relatively little is actually realised. Across the continent local suppliers are seldom used and an indigenous service and supply sector for the mining industry has not developed to any significant extent outside of Ghana and South Africa. Furthermore, despite the advanced capacity of the South African mining service sector and continued evidence of world leading innovation in this sector South Africa does not appear to be benefitting proportionally from the activities taking place on the African continent. The multi-national nature of the corporations currently engaged in exploration and mining activities in Africa and the endemic systems that exist within these corporations that pre-determine the procurement route, from the design phase right through to the operational phase of the mine life cycle, effectively exclude the participation of the South African mining service sector from engaging in a significant percentage of the procurement process.

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1. Introduction

Africa traditionally was and continues to be a significant supplier of raw materials to world markets. It is therefore no surprise that the mining sector is a major contributor to the overall GDP of the continent. In some countries the mining sector is both the largest single contributor to GDP and taxes and the largest source of foreign investment and foreign exchange. Unfortunately the direct impact of these mining operations on the regional and local economies appears disproportionately low, a fact that has not gone unnoticed and that is frequently discussed in the echelons of power both by involved governments and mining corporations alike.

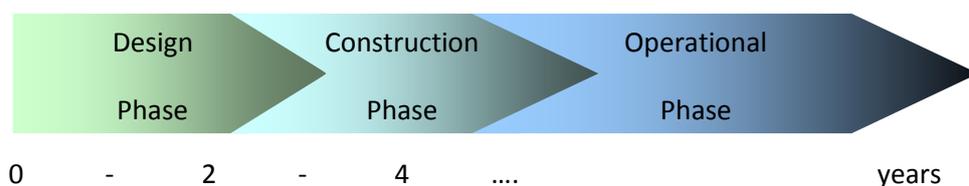
The policy directions of regional bodies, governments and mining corporations make frequent reference to the fact that more needs to be done to ensure that a greater percentage of the investment capital of these mining projects remains in the countries concerned and the region as a whole. However, despite the recognition of the deficiency that exists there is no tangible evidence to suggest that positive inroads in achieving these policy goals have been made.

In this paper I intend to expose, through observations of current practice both the reality and the myth in the policy directions and statements of some of the itinerant mining corporations operating in East Africa. The paper is not meant to criticise the activities of the mining corporations themselves but intends to explain why, despite positive reporting of relevant figures in corporate annual reports, little real improvement is actually evident in the economies concerned.

2. Summary of Factors that Influence Procurement Decisions During the Development and Operation of a Mine¹

When considering the factors which influence procurement decisions in a mine development further to successful exploration and the decision to proceed with development it is important to first understand a mine's lifecycle. Post exploration there are three key phases within the life cycle of any mine, the Design, Construction and Operational Phases. Within each of these phases critical decisions are made that impact and influence procurement decisions during that phase and subsequently throughout the life cycle of the mine (Figure 1).

Figure 1: Life cycle of the mine



¹ This section draws on the content from a previous paper I presented to this group in 2009. It has been included to provide background and differs from the previous version having been updated where appropriate.

Critical decisions made during each phase that directly impact the procurement process as outlined below:

Design Phase:

The design of the mine often takes place many years prior to the actual commissioning of the construction project to build the mine. The decisions made within this phase are heavily influenced by the client – the actual corporation in possession of the mining license. The client, who will engage, in many cases, an independent design team, who will adhere to strict guidelines and direction from the client, requiring that the design is standardised where possible with their other operations. This practice of standardisation aims to minimise risk exposure where possible in an otherwise high risk sector by ensuring that the mine design is proven with an ability to produce to known productivity targets.

Standardisation has a direct impact on procurement with the specification of specific manufacturers for the mechanical and component requirements of the operation. As the decisions made in respect to specification are based upon precedent rather than available local expertise or manufacturing capacities local and regional businesses can be effectively excluded from servicing these procurement requirements and subsequent maintenance and spares requirements that will develop over the life cycle of the mine.

With such a strong pool of expertise in the mining sector South Africa should be expected to monopolise such service provision to other African nations, however, again the pre-determination of manufactures and products based upon precedent provides a deviation from the expected often leading to South African manufacturers and suppliers being effectively excluded from the procurement process.

At this initial stage of the mine life cycle decisions are made that directly impact procurement decisions, both in terms of initial infrastructure purchases, but also the service, maintenance and component supply for such infrastructure. Through the practice of direct specification of manufacturers many procurement decisions are de facto already made without any consideration for local economic capacity. This results in the effective exclusion of both local and regional business operations from a significant segment of the potential business to be generated by a mine development.

Construction Phase:

As with the design phase, the decisions made during construction are extremely important as they have a direct impact upon future procurement decisions of the operational mine. While it is undeniable that revenues will enter local economies as a result of construction activities, once again, through attempts to minimise exposure to risk the large mining corporations in most cases make decisions in distant head offices that effectively limit opportunities for such revenues to enter into local economies.

Mine construction is a specialized field and worldwide there are relatively few construction companies who are capable of winning a tender to construct a new

mine with the main players (Box 1) generally originating from North America, Australia and South Africa. At pre-qualification capacity issues effectively exclude any large construction companies existent in the other sub-Saharan African countries from participating in the tender for the main contract. The resultant award of contract will therefore go to one or other foreign based contractor.

Box 1: Mine construction contractors

- Ausenco – Australia
 - www.ausenco.com
- Lycopodium – Australia
 - www.lycopodium.com.au
- Murray and Roberts Mining – South Africa
 - www.murrob.com
- SNC Lavalin – Canada
 - www.snc-lavalin.com
- Senet – South Africa
 - www.senet.co.za

It is this point, the award of contract to the main contractor, which is critical to future procurement decisions during the construction phase. Aside from those pre-determined procurement decisions the main contractor controls many decisions in respect to where to procure less specialised and more generic materials required for the actual construction project, as well as full control over the appointment of sub-contractors to conduct elements of the project on their behalf, and the standard system to which construction will conform. It is the norm for an international standard to be adopted (US, UK, Australian, SA etc) in the absence of equitable standards under local legislation. Main contractors, much like the mining corporations, rely heavily on precedent when making decisions as to where to procure materials and who to appoint as sub-contractors. In projects with tight deadlines a proven ability to deliver is often deemed more valuable than reduced cost at the expense of unknown risk. The practical outcome of such practice is that the main contractors tend to favour suppliers and sub-contractors whom they have worked with in the past and with whom they have a favourable working relationship. In the many instances this leads to a reliance on organisations from the home country of the main contractor at the expense of available capacity existent within the local economy.

Where local sub-contractors are engaged by the main contractor the level of revenue generation for the local economy is further limited by the contract type awarded to the sub-contractor and Standard specification for the project. The contract type determines whether or not the sub-contractor has any decision making powers within the materials procurement process, while the Standard specification for the project effectively limits where materials can be procured if the sub-contractor is given any responsibility for procurement.

Furthermore the decisions made by the main contractor as to the Standard specification determine future procurement decisions during the operational phase in terms of servicing, maintenance and consumables for the installations. For the full

life cycle of the mine all procurements will subsequently have to conform to the determined Standard. In practice this generally excludes local organisations from engaging in the procurement process as often only specialist suppliers and sub-contractors that serve the region, predominantly based in South Africa, have the ability to adapt to meet the varied and often unusual short and long term requirements that can result from Standard setting.

Therefore, while on the one hand the appointment of main contractors from outside of Africa denies revenue to the local and regional economies, due to the advanced nature of the mines service and technology sector in South Africa, revenue generation does occur for South Africa both in the short term during the construction phase and long term into the operational phase of the mine life cycle. The net result is that the local economies lose out on revenue in the first instance to large corporations from outside of Africa and then subsequently to the regional power house South Africa. The combination of the advancement and the ability to operate regionally of the South African sector combined with a very low manufacturing capacity regionally, outside of South Africa, creates a situation whereby there is little incentive for the large mining operations to take risk and engage in local procurement, which would serve as investment in the development of indigenous capacity, when they can easily deal directly with the manufacturers, innovators, service providers attuned to their needs in South Africa.

A summary of the process and decision making in procurement within the Design and Construction Phases of the mine life cycle is outlined in Figure 2 below.

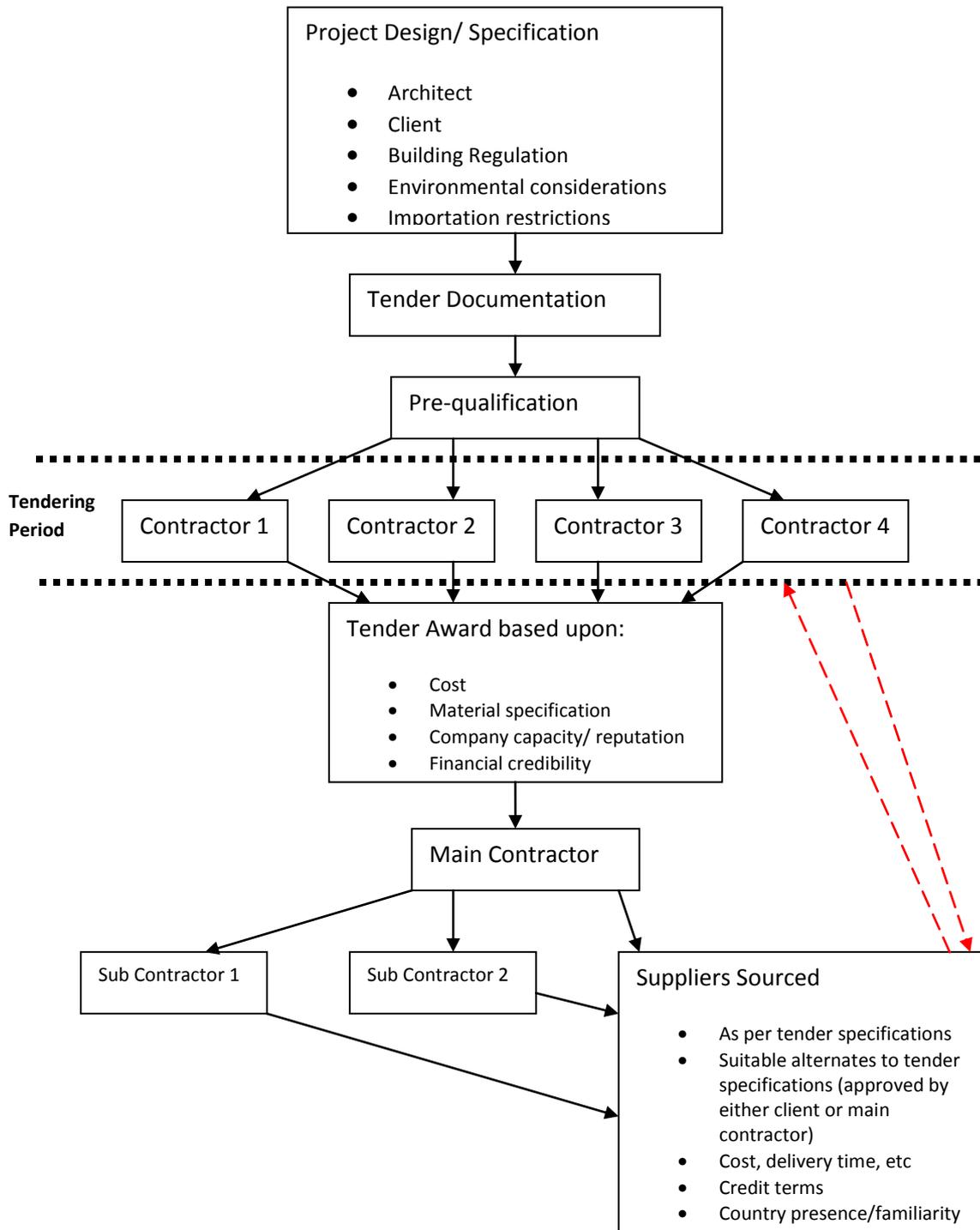
Operational Phase:

As a direct consequence of the design and construction phases many of the procurement decisions during the operation of a mine will in actual fact have been predetermined. Of those that remain there are again a number of factors inhibiting linkages into local economies which are summarized below:

1. *Precedent and Corporate Risk Aversion:* To run a successful mining operation in a remote location the welfare needs of the considerable workforce need to be catered for. This is a considerable logistical feat including the supply of accommodation, catering, the supply of drinking water and food stuffs etc. – all items that would appear suitable for provision by local suppliers. However, by the time a mine is operational many of the systems, structures and suppliers have already been established by the main contractor for the construction phase. They tend to appoint international companies who they know have a track record of delivery in similar environments as they cannot afford the risk of systems failures for critical services as they could jeopardise the outcome of the contract they have been awarded. These contracts, albeit with the main contractor and for the duration of the construction phase only, have a habit of being extended by client for the operation phase. Simply put once an international contractor is on location, and delivering catering or another service to the required service standard, it is far simpler to maintain this contractor than to move to another one. Despite economic incentives it is often the fact that there is less risk involved in maintaining the status quo that presents a barrier to the engagement of a local service provider.

Local suppliers are by no means restricted from tendering at a later date to take over the various service and supply contracts on offer but it does often mean that the chances of obtaining contracts in the initial operational years of the mine are low.

Figure 2: Process Flow of Procurement Decision Making in the Design and Construction Phases of a Mine



Note: Duration of process outlined in Figure 2 – 5 years to 15 years

2. *Centralised Global Procurement:* Numerous significant procurement activities are required to maintain the production of the mine including the supply and servicing of plant, supply of fuels, lubricants, chemicals etc. The value of these contracts is considerable with the profitability of the mine often resting upon their effective procurement. Due to their critical nature and the high value of the contracts that are awarded, responsibility for such procurement is often not within the responsibility of the individual mines but rather their global head office who procure these goods and services corporately. Such corporate procurement effectively excludes local suppliers as only suppliers who are able to deliver on a global scale can tender for such contracts, and there are very few such suppliers in sub-Saharan Africa, the majority of those that do exist being in South Africa.
3. *Location of decision making* – If decision making rests with corporate offices outside of the country of operation then it is highly likely that the procurement potential of the country of operation will not be realised.
4. *Lack of contact with local markets and suppliers* - Even when a procurement function is located on the operational mine site the procurement officers may have little interaction with the local economy preferring to use existing corporate procurement structures and bypassing local potential. This tends to occur due to the insular and geographically remote nature of many mine sites. Lack of exposure to the local environment tends to lead to a lack of appreciation of what can be feasibly procured from local suppliers.
5. *Lack of knowledge of the local environment* – Most procurement functions on a mine site are expatriate lead. A combination of the lack of interaction with local communities afforded to expatriate employees and the relative isolation of the mine sites results in a situation where the procurement decision makers on site have little understanding of local markets and distribution networks, and certainly do not often have any credible intelligence as to the local procurement potential existent within these local markets.
6. *Scepticism and Arrogance* – A consequence of the large groupings of expatriates living together on remote sites in environments that they have little or no knowledge of, is that a sense of segregation leading to malaise and antipathy towards anything local develops in line with a sense of superiority and arrogance. This is translated into a high level of scepticism towards the abilities of not only local employees but also national capacities and an arrogant perception that everything on the mine is far superior to the national environment. In terms of procurement this often results in scepticism of any services and products offered locally.
7. *Previous Experiences* – In many cases when expatriate procurement officers do engage with in local procurement the level of service they receive does not meet with their expectations. This occurs for a number of factors ranging from misinterpretation of requirements by suppliers (normally language issues), to necessarily convoluted procurement and payment processes from the mine that are new and difficult to work with for local suppliers, to differing cultural interpretations of service standards. Having not received the service

standards expected during an initial engagement with local markets expatriate procurement officers tend to try to avoid engaging in local markets reverting to markets they understand, feel comfortable with and know will deliver to the standards they require.

8. *Poor Appetite for Risk by key employees* - The performance of purchasing personnel in mining operations tends to be monitored by their ability to deliver, within budget and within agreed time scales. Moving to new suppliers is a move into the unknown and there are potentially negative effects on performance. Combine this with the fact that active rotations on site rarely exceed 8 weeks with a two week break, and the result is a situation whereby it is not viable for procurement personnel to develop local relationships without unacceptably high risks to their own performance ratings. The performance management systems for procurement personnel reflect the mining corporations' poor appetite for risk creating an environment that is risk averse in terms of procurement and that negatively impacts upon the utilisation of local suppliers.

Summary:

Many procurement decisions taken on operational mines are pre-determined either in the design phase or the construction phase by decision makers and organisations that are detached from the local procurement environment or by global corporate procurement contracts. Such decision making creates barriers that exclude procurement from local sources and inhibit the development of local capacity.

3. Observations of Current Procurement Practice

In this section I outline examples of current procurement practice based on my observations as a practitioner in the mining sector of East Africa. As a result of my observations, I would argue that, despite the negative points made above, there are still opportunities for local businesses to engage with the large mining operations, and to develop successful linkages, examples of which are described in Section 3 below. However, relatively only a small percentage of the total procurement budget is available and accessible for local suppliers.

African Barrick Gold:

Context: African Barrick Gold is the largest gold producer in Tanzania and one of Africa's five largest gold producers. Current production levels have reached 716,000 ounces per annum. Currently African Barrick Gold has four operational mines in Tanzania and is exploring a further four major prospects.

Procurement Policy: Operates a pragmatic and systematic procurement policy that undertakes to engage in local procurement wherever possible and practical. Reports on percentage of local procurement and ascertains that up to 50% of all procurement is local procurement.

Issues raised with Procurement Practice: In the performance reporting of local procurement there is no clear cut definition of what conforms to local procurement.

For example one of the high value procurements any mine will make is in spares and maintenance for their plant and equipment. If spare parts are procured through local dealerships of large multinational plant suppliers (Komatsu, Caterpillar, Hitachi etc) this is deemed as local procurement – even though in practice these local dealerships are little more than mail boxes forwarding the requests from the mine to regional or worldwide head offices. By defining such procurements as local it is very easy for African Barrick Gold to report high levels of local procurement.

However, the reality in the local markets is the following:

- Local suppliers find that acting as a supplier to African Barrick Gold is too complicated for the systems they have in place – there is too much paperwork involved and expectations of what they can provide are unrealistic
- Timescales allocated to supply once a Purchase Order has been issued are unrealistic
- Payment of invoices often takes over 60 days – which is often too large a financial exposure for local suppliers to cope with
- Suppliers often decline to supply African Barrick Gold for the reasons cited above – it is interesting to note that the volume of business offered to these local suppliers is obviously not significant enough for them to put up with these inconveniences and they deem dealing with African Barrick Gold not to be viable
- Numerous claims of graft and impropriety within the procurement department – and the feeling that there is not a transparent and free process in operation – leading to a sense that it is a closed market that is not accessible to most suppliers
- Public initiatives to engage local suppliers appear to have been little more than lip service and publicity stunts
- What real engagement there has been in engaging local suppliers and assisting them to produce goods to an appropriate standard appears to be unsustainable and leads to dependency. Suppliers have been assisted to produce products for the mine at rates that are uncompetitive in the open market – leading to the product only having one market – the mine itself. Once again this action serves more to promote the Corporate Social Responsibility targets of the mine than promote real economic growth and development
- Many procurement decisions relate to global contracts determined in the Barrick Corporate Offices in Canada effectively excluding local markets

Geita Gold Mine:

Context: Geita Gold Mine is operated by AngloGold Ashanti and in 2009 produced approximately 272,000 ounces of gold. It is the only mine in Tanzania operated by Anglo Gold Ashanti.

Procurement Policy: Operates a pragmatic and systematic procurement process that undertakes to engage in local procurement wherever possible and practical.

Issues raised with Procurement Practice: AngloGold Ashanti have a policy of maximising local procurement where possible actively encouraging their

procurement officers to engage with local suppliers and explore the opportunities offered by local markets.

However, the reality in Tanzania is the following:

- Local suppliers find that due to the segregation of Geita Gold Mine from the rest of Geita town (for security reasons) they have very little opportunity to interact with the procurement officials and hence perceive that they are excluded from business opportunities.
- Payment of invoices often takes longer than suppliers anticipate causing problems of financial exposure for the suppliers. This is mostly due to cumbersome internal payment approval processes.
- There have been significant changes (high turnover) in the procurement department at Geita Gold Mine over the past 2 years and with these changes challenges have been made to the status quo – meaning that suppliers who customarily received requisition orders found that these requisition orders were also offered to their competitors. For the incumbent suppliers this may be seen as a negative event, however, in terms of interacting more effectively with the local supply base this is definitely a positive development
- Public initiatives to engage local suppliers appear to be tailored to community development projects as opposed to nurturing and increasing the capacity of local suppliers.
- Many procurement decisions relate to global contracts determined in AngloGold Ashanti head offices in South Africa effectively excluding local markets

BANRO Corporation:

Context: The BANRO Corporation is a Canadian Based gold exploration and development company with four separate properties in the Democratic Republic of Congo. Currently the first of 4 planned mines is under construction at Twangiza in South Kivu Province of the Democratic Republic of Congo.

Procurement Policy: In this mine development that is currently in the construction phase there is a newly formed procurement office for BANRO along with the various procurement functions existent amongst the various contractors. The BANRO Corporation is committed to gathering intelligence as to the capacities and availabilities of their requirements amongst local and regional markets with an aim to maximise procurement from these markets where feasible.

Procurement Practice in Reality: The BANRO Corporation have a policy of maximising local procurement and there is evidence that they are actively encouraging and supporting their procurement officers to engage with local suppliers and explore the opportunities offered by local markets. Direct evidence of this can be seen in the way in which the procurement officers have travelled to each of the regional urban areas to determine the availability and quality of products that they will require during the operational cycle of the mining operation.

The contractors have, however, generally tended to be risk averse in their procurement practice and source the majority of their materials from home countries or regional supply hubs such as South African and the United Arab Emirates. The

one exception to this rule is the catering supplier who now sources 100% of the fresh produce from local producers in South Kivu Province.

The BANRO Corporation has shown willingness to engage on a commercial level with local and regional suppliers and the procurement department has shown willingness to explore and learn about the local markets. Naturally, a large percentage of all procurements are still made out with the local market, and often from the home countries of the procurement officers. However, a tangible effort is being made to minimise this practice where possible. If current efforts are maintained and they continue to be supported by the BANRO Corporation management this organisation could achieve in reality what many other mining corporations aspire to achieve.

However, this optimism needs to be tempered by the fact that during the Construction Phase, the traditional trend of supply from the country of origin of the main contractor has been maintained. In the case of the Twangiza mine the main contractor is from South Africa and therefore there has been significant benefit to the South African economy from this project.

4. Discussion

In this paper I have outlined the factors that influence procurement decisions throughout the life cycle of a mine. In addition through observations of current procurement practice I have provided a comparison between procurement policy and practice.

Through the observations of current practice I have demonstrated that the issues outlined in Section 2 are observed in mining operation realities. Of particular importance in these three examples are the issues of Precedent and Risk Aversion, Centralised Global Procurement, Lack of contact with local suppliers and Previous experience. BANRO provides one example of steps in the right direction but this must be tempered by recognising that:

1. The BANRO Corporation, although a Canadian company, has subcontracted the construction to a South African company that is used to working in African environments outside of South Africa and therefore possesses at the very minimum regional procurement intelligence and networks. During the construction phase the main contractor is responsible for the majority of the procurement issues and the procurement function within BANRO is able to benefit from the experience of interacting with the procurement function of the main contractor. Furthermore, the elements of Corporate Risk aversion in this instance serve to promote the South African Market as the main contractor's procurement function will revert to know and tested suppliers in South Africa for critical items.

2. The political and social history of DRC create a unique environment within which the company is working and therefore it is difficult to say that the example is transferable. Twangiza mine site (the first of the BANRO concessions to be constructed) is located in South Kivu Province in Eastern DRC. BANRO has the rights to a large geographical area within this Province and intends to construct 4 or 5 mines. The area is politically unstable with many rogue rebel elements still

operational, as well as a significant number of artisanal miners. A significant piece of recent legislation led to the banning of artisanal mining in South Kivu Province and has raised tensions and animosity toward the corporate approach to mineral extraction. In order to ensure that there is perceivable local economic impact from their operation BANRO has vigorously pursued a policy of community engagement which has permeated through to the procurement policy. It is very much in BANRO's best interests to engage with local markets, as in so doing they erode the power base of and the dependency that the population had in respect to rebel factions and small scale mineral traders who utilised artisanal mining techniques.

However, the example highlights that opportunities do exist for local suppliers and that these opportunities may be transferrable in context, if the barriers created by existing risk aversion strategies can be overcome and if the positive words included in policy are driven through by management into reality. Greater levels of local procurement can be achieved but only if there is real tangible commitment that filters down from the level of policy development to actual practice. For this to occur, there needs to be complete agreement and buy in from all levels of corporate and mine management.