

WHAT IS THE STATUS OF SMALL-SCALE MINING IN SOUTH AFRICA?

DISCUSSION DOCUMENT FOR THE MQA SSM COLLOQUIUM, AUGUST 2010



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EXECUTIVE SUMMARY

The main objective of the study is to establish broadly the status of SSM in South Africa, identify the key development issues associated with the sector in South Africa and globally and propose a strategic approach for the MQA to support development of the sector. This brief study was done to inform the beginning of dialogue which will be marked by a colloquium. It is hoped that the proposed strategic approach will inform the development of an SSM Support Framework for the sector.

Information was collected through literature reviews and key informant interviews. Some of the information was provided by the key stakeholders.

The report is a scan and not a detailed report given the scope as well as the resources allowable for the work. The following areas were looked into; who is operating in the sector, how the sector is categorised, what commodities are exploited and the kinds of activities are taking place. The policy and legislative environment was also looked at and as were key development issues such as skills transfer, organisation, gender equity, access to technology and finance.

It was possible to identify certain key issues that will be the basis for discussion at the colloquium. The key issues that emerged were grouped into three areas: i) understanding the sector, ii) coordination and collaboration, iii) structure of training, iv) capacity building.

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- Other stakeholders who provided links to other sources of information

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1. Introduction

1.1. Background

The growth of the small-scale mining sector in South Africa has accelerated since democracy as the mining sector opened up to more people. It has become an opportunity for livelihood strategies in ways that were not possible in the past. This has led to the development of the sector in new ways. The growth of what is often referred to as “informal” artisanal mining activities has grown. In addition more women and youth are involved or aspire to participate in the sector as small-scale operators. Over the years the approach to supporting the development of the sector has had to change. This is reflected in attempts by many of the organisations servicing the sector crafting new strategies for more effective support. It is with this background that the need arose for the MQA together with its partners, to initiate a new dialogue on how they could be more effective in provision of skills and knowledge to the SSM sector in South Africa. This very brief study was done to inform the beginning of this dialogue which will culminate in a colloquium. The main objective of the colloquium is to assist the MQA and other stakeholders of the SSM sector to establish broadly the status of SSM in South Africa, identify the key development issues associated with the sector in South Africa and globally, and propose a strategic approach for the MQA to support development of the sector. It is hoped that the proposed strategic approach will inform the development of an SSM Support Framework for the sector.

1.2. What was done? (Scope of work)

The work that constitutes this assignment included:-

- A review of MQA research and other identified relevant research in SSM;
- Interviewing a small sample of identified stakeholders of the SSM sector to understand the key issues of the sector;
- Critical analysis of the research in preparation of the colloquium discussion document;

1.3. How was it done? (Methodology)

Over a period of two weeks interviews were done with a number of key stakeholders of the SSM sector in South Africa. At the same time identified relevant documents were reviewed.

Literature review

The documents reviewed were obtained from various sources and provided existing information on the SSM sector in South Africa. The documents included publications and reports of the MQA and other relevant bodies. Some of these reports were provided by key informants, or obtained from the internet and private libraries.

The following sources were targeted for such information:

- The MQA
- Government departments (national and provincial) that impact on the SSM sector, e.g. those responsible for mining, water, environment, technology, social development, gender
- National and provincial agencies
- Multi-lateral agencies and donors
- Regional economic development agencies
- Miners Associations and other trade bodies
- Labour organisations

Key Informant interviews

The interviews with key informants were semi-structured, with questionnaires to guide the process of information gathering. Given the limited nature of the assignment with regards to resources, particularly time, only a few select informants were interviewed. These were chosen to provide a broad representation of the sector. Direct contact with informants was limited to Gauteng. Telephonic interviews were held with those key informants further afield to save on resources. The key informants were individuals from the following types of stakeholders:

- Selected small-scale mining operations to provide a picture of industry practices
- Associations of small-scale miners
- Relevant government departments including those with a regulatory function over the SSM sector
- Institutions working with the SSM sector in research, support and service provision
- Other relevant industry bodies
- Labour organisations

2. What was found? (Findings)

The findings presented here are informed by a very brief scan of the SSM sector in South Africa. The information is solely based on literature review and brief discussions with key stakeholders in the sector. The findings are structured to reflect the following:

- The status of SSM in South Africa with regards to who the operators and other stakeholders are, what commodities they are working with, where the activities are to be found, the extent of beneficiation and value adding, funding availability, and classification and categorisation of the sector
- Policy and legislative framework from the perspective of regulating and supporting development of the sector
- Key development issues including enterprise support, transfer of technology, knowledge and skills, technical, finance and gender equity.

2.1. What is the status of SSM in South Africa?

2.1.1. Who is operating in this sector?

The key finding of this scan regarding the demographics of the SSM sector is that there are no reliable statistics that provide an overall picture of the sector in South Africa. Different stakeholders have information that pertains to interventions that they have executed. However, reports on these interventions concerns only the beneficiaries and hence the statistics do no more than give a picture of only these beneficiaries. Such kind of data includes:

- MQA registered levy payers and non-levy payers also registered with the MQA. The MQA database of small organisations contains 979 organisations (personal communication, Meryl Plasket, 2010). Basic analysis of this data indicates that more than 60% of the organisations in the database have less than 10 employees (see Table 1). However, in attempts to contact some of the organisations it became apparent that many of them do not update their records with the MQA on a regular basis. The few that the consultants tried to contact had either gone out of business or could not be reached at all using the contact details that are on the database. This highlights the fact that many small organisations lack the capacity to comply with regulations even if they are aware of them. The MQA has identified the same challenges with submission of the work skills plans (WSP) and Annual Training Reports (ATR). To deal with this they have appointed independent skills development facilitators who assist the small organisations with completing and submitting their WSPs and ATRs. This is important because it is from these submissions that the MQA identifies scarce skills and assesses the skills needs of small organisations. Also from time to time the MQA commissions research that helps them fill these information gaps.
- Beneficiaries of training programmes of the MQA – The targets for MQA support of training of small organisations are set in the National Skills Development Strategy. These are reported on a regular basis (e.g. MQA annual report 2008/9, MQA Sector Skills Analysis Report 2010). These targets guide the training projects that MQA implement. For example, in 2008/9 the MQA supported training of approximately 2000 people through a program called the “Voucher System”. However, it is not clear how many of these went on to be involved in small organisations that fall under the MQA SIC codes.
- Entities that have requested assistance from the DMR and those that have received support through the Small-scale Mining Board (figures not available at the time of writing the report). MQA is currently undertaking a study to assess the impact of the training programs that they have implemented.
- Industry associations in the sector like the Jewellery Council of South Africa and the Diamond Council. The majority of the operators belonging to these bodies are reported to not be registered with the MQA.

Any analysis of this information is therefore a demographic profile of the people who have made contact with the service providers and not of all the people participating in the sectors. Most stakeholders interviewed attest to this lack of data for the SSM sector in South Africa. From the information that is available the impression that one has is that both men and women participate in the minerals sector, though there are much fewer women. However, the data reporting is not gender disaggregated. The racial profile includes all races; however, one gets the impression that certain areas are dominated by one racial group. But without a proper baseline survey all the information remains anecdotal and it is considered misleading to extrapolate any of the data that exists.

Table 1: Number of employees in small organisation (extracted from MQA small organisations database).

Number of workers in organisation (range)	%
1-5 workers	46.33
6-10 workers	15.81
11-15 workers	9.11
16-20 workers	7.99
21-25 workers	4.95
26-30 workers	4.79
31-35 workers	2.40
36-40 workers	4.15
41-45 workers	2.40
46-49 workers	2.08

2.1.2. What are the core activities of the SSM sector?

The activities of the SSM sector can be considered from different perspectives. One perspective is that of the strict value chain activities (see Fig. 1). Another perspective adds a tier of side-stream activities related to the production chain, e.g. training for the sector, technical consultants etc. However, according to the MQA mandate a third tier of activities has to be included, which are the services that are incidental to mining such as catering etc. (see Table 2). There are 25 SIC codes under which small organisations have registered with the MQA. The SIC code for mining and quarrying has the highest number of registered entities, approximately 26%, followed by “services incidental to mining” at 16% and extraction and evaporation of salt at 13%. As previously mentioned this data is not representative of the sector and is only of the small organisations on the MQA database, therefore it cannot be extrapolated to represent the whole sector.

The commodities in which small organisations are involved are quite varied if one in considers participation in the whole mining value chain, i.e. from exploration to producing and marketing a finished product (see figure 1). These commodities can be broadly put into the following categories:

- Precious metals i.e. gold and platinum
- Precious stones, e.g. diamonds
- Base metals, e.g. copper, iron etc.
- Industrial minerals, e.g. andalusite, kyanite, magnesite, kaolin, limestone
- Construction materials. e.g. aggregate, dimension stone, sand
- Coal

The DMR reported that >90% of enterprises are in industrial commodities. This includes slate, sand, clay, sandstone, dolerite and granites used in the construction industry.

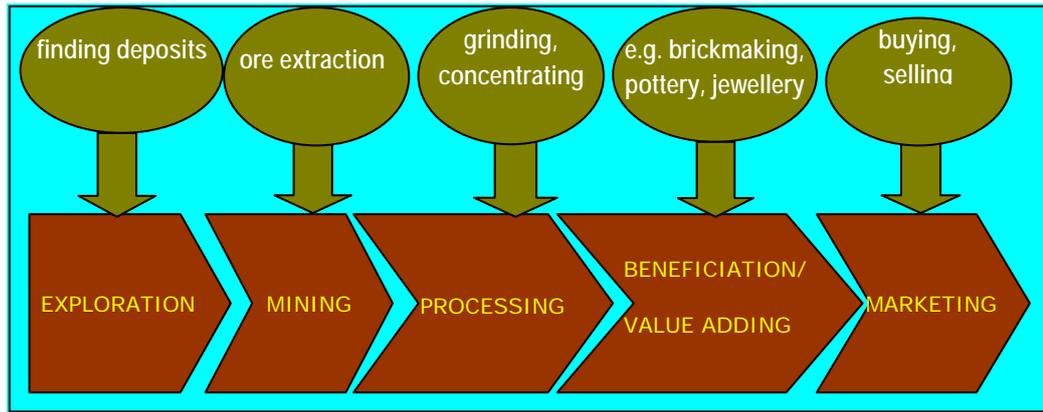


Figure 1: Small operators are participating in the whole mining value chain (after Mutemeri et al., 2007).

Table 2: The percentage distribution of small organisations by standard industrial classification codes (SIC), data extracted from MQA small organisations database. There are a total of 976 organisation registered in the database.

	Description	SIC code	%
1	Mining of Coal and Lignite	21000	6.03
2	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction except surveying	22100	1.15
3	Mining of gold and uranium ore	23000	5.32
4	Thick tabular operations	23002	0.14
5	Massive mining operations	23003	2.16
6	Mining of metal ores; except gold and uranium	24000	1.15
7	Mining of iron ore	24100	0.43
8	Mining of non-ferrous metal ores; except gold and uranium	24200	0.29
9	Other mining and quarrying	25000	26.29
10	Quarrying/dimension stone operations	25101	4.45
11	Open cast/strip mining operations	25102	2.16
12	Open pit operations	25103	1.01
13	Dimension stone (granite; marble and slate)	25110	0.14
14	Mining of diamonds (including alluvial diamonds)	25200	0.14
15	Marine and quarrying	25201	0.57
16	Coastal mining operations	25202	0.72
17	Extraction and evaporation of salt	25320	12.79
18	Other mining and quarrying	25390	0.14
19	Mining of precious and semi-precious stones except diamonds	25391	1.01
20	Service activities incidental to mining of minerals	29000	15.80
21	Manufacture of cement; lime and plaster	34240	3.16
22	Manufacture of jewellery and related articles	39210	8.05
23	Jewellery and related articles composed of precious metals precious and semi-precious stones and pearls	39211	5.46
24	Diamond Cutting and Polishing	39212	0.14
25	Other precious and semi-precious stone cutting and polishing	39219	1.29

2.1.3. Where does one find SSM in South Africa? (Spatial Distribution)

The spatial distribution of SSM activities is not very well understood. There is not enough published data to build a meaningful picture of what, where and how much SSM is taking place in the different parts of the country. The data available is that of entities that have made contact with service providers to the sector.

However, this does not account for informal activities and the majority of formal activities that may not be registered on a database of one form or another. From anecdotal information one gets an impression that certain types of activities are more prevalent in some areas than in others. The spatial distribution of the mining of most commodities is determined by the geology, for example alluvial diamonds in the Northern Cape and the North West Province, and copper in the O’Kiep area of the Northern Cape. The exploitation of ubiquitous commodities like aggregate and sand is usually controlled by the amount of construction taking place in the immediate geographic area, because long transportation distances would render the project unviable.

If one takes into account all the entities that would be included in the SIC codes assigned to the MQA then the distribution must take into account activities related to beneficiation and value adding such as diamond cutting and polishing, and jewellery manufacturing. The distribution of such activities is independent of the geological occurrence of the commodity. It is more dependent on economic activity which creates a market for the finished goods. Hence it is more prevalent in urban centres. This might explain the predominance of Gauteng as the province assigned to a lot of the small organisations on the MQA database (see Table 3). One limitation of this database with regards to the spatial distribution of the operating entities is that it is possible that the entities may be registered in urban and economic hubs such as Johannesburg, yet the actual operation may be somewhere else. This database also under-represents the informal and non-levy paying activities.

Table 3: Distribution of small organisations registered by provinces of South Africa. There are a total of 976 organisation registered in the MQA database.

Province	% of organisations
Eastern Cape	1.96
Free State	1.96
Gauteng	52.20
KwaZulu Natal	3.79
Limpopo	3.55
Mpumalanga	9.78
North West	9.17
Northern Cape	6.23
Western province	11.37

2.1.4. How much beneficiation and value addition is there?

Participants in the SSM sector get involved in beneficiation and value addition to different extents and in different ways depending on the commodity. For commodities such as gold, base metals and precious stones, as in the rest of the mining industry, enterprises are usually limited to only one part of the value chain. In this case enterprises are either involved in mining and the initial processing only and the product they produce is bought by other enterprises producing finished products like jewellery. In some instances as is the case with gemstones, the enterprise might be involved only in taking the product from a mining

operation to an intermediate product, e.g. diamond cutting and polishing that is sold to jewellery manufacturers who then produce a finished good. However, for some industrial minerals and construction materials and aggregate it makes more sense for the operations mining the material to also produce a finished product thereby participating in more stages of the value chain. A lot of the value added products produced would be for the local market e.g. bricks for an immediate local construction industry and jewellery sold in the local retail shops. The products by small organisations from the beneficiation of minerals include; jewellery, polished precious and semi-precious stones, bricks, stone products like crafted stone, tiles, cladding, ceramics and pottery.

Some of the challenges faced by small organisations in the business of value adding minerals include access to appropriate technology and equipment, skilled labour, the cost of inputs, access to markets and competitiveness against cheaper imports. The cost of inputs is a major challenge for diamond cutters and polishers, with the increasing difficulty of accessing rough diamonds. This challenge has the potential to push operators into illegal access of rough diamonds. The Diamond Council and the Jewellery Council of South Africa work with the government to try to resolve some of these challenges.

2.1.5. Who are the stakeholders of SSM sector?

The stakeholders for the SSM sector in South Africa according to type, as described in the methodology under “Key Informants”, include:

- Small-scale mining operations including artisanal, “informal”, small-scale semi-industrial to industrial, operating at all stages of the mining value chain from exploration to producing and marketing mineral-based products, in different commodities
- Associations of small-scale miners, like the Small Scale Mining Chamber, Northern Cape Small Miners Empowerment Co-op
- Relevant government departments including those with a regulatory function over the SSM sector, like the Department of Mineral Resources (DMR), Department of Labour (DOL), Department of Higher Education and Training (DHET), Department of Trade and Industry (DTI), Department of Science and Technology (DST)
- Institutions working with the SSM sector in research, support and service provision, e.g. MQA, Council for Geosciences, CSIR, Mintek, Khula, IDC, Anglo-Zimele, State Diamond Trader, World Bank SME initiative, smaller learning providers
- Other relevant industry bodies like the Chamber of Mines, SAMDA, Jewellery Council of South Africa, Diamond Council
- Labour organisations like the National Union Mineworkers

For the purposes of this study a list of people that represented the different stakeholders was drawn-up and these were targeted for interviews. Unfortunately because of the short notice given the timeframes of the project it was not possible to talk to all of them.

2.1.6. How is SSM classified?

The sector is very difficult to classify and categorise. One of the key issues with regard to this is the definition of small-scale mining and the kinds of activities that one associates with sector. For the purposes of this work

the SSM sector is deemed to include all mineral-related activities of small organisations. The definition of small organisation is as described in National Small Business Act, 1996, i.e. for mining and quarrying less than 50 employees, a turnover of less than R7.5 million and gross asset value of less than R4.5 million. Categorisation is complicated by the fact that some operations in the SSM sector may have a very low turnover and asset value which to all intents and purposes should be classified as a small organisation but employ more than 50 unskilled people which is the cut-off number of employees in a small organisation. The opposite is also true where consultancy firms with a high turnover may employ less than 50 people and sometimes as few as 3 or 4 professionals.

It is often more prudent to classify according to requirements of a specific intervention or reason. One of the reasons for classifying the sector is so that interventions can be structured appropriately. From discussions with different stakeholders it seems that one way to categorise the sector is by level of sophistication of the activity, i.e. whether it is registered and pays taxes and levies, or submits returns as required by relevant laws. Development practitioners have in the past tried to define categories for the sector based on level of capitalisation, technology applied, mechanisation and formalisation. Strategies to service the sector will have to take into account these differences.

The MQA uses Standard Industrial Classification Codes (SIC) for classification of the sector. These include 21000 to 29000, 34240, 39212 and 29219. Those where small organisations have been registered are shown in Table 2. However, aggregation of some of the SIC codes into subsectors is often done for a better picture in designing interventions to support the sector. The subsectors are:

- Coal Mining
- Gold Mining
- Platinum Group Metals (PGMs) Mining
- Diamond Mining
- Other Mining which includes the mining of iron ore, chrome, manganese, copper, phosphates and salt
- Cement, Lime, Aggregates and Sand (CLAS)
- Services Incidental to Mining
- Diamond Processing
- Jewellery Manufacturing

2.2. What is the legislative framework for SSM in South Africa?

The policy and legislative framework that is relevant to the SSM sector in South Africa can be considered from two perspectives. The first relates to the regulation of the mining sector. This covers issues such as mining rights and the attendant obligations relating to utilisation of the rights, such as environmental management, and health and safety. Also related to administration of the mining sector are policies and laws about beneficiation and marketing of minerals. The other policies and legislative provisions are concerned with the fact that SSM operations are business entities.

Implementation of government policy on beneficiation is supported by the Directorate for Beneficiation Promotion, the State Diamond Trader (SDT) and Diamonds and Precious Metal Regulator (DPMR). The

mandates of these entities are explicit about the support of small organisations. Collaboration with other government organs is mentioned, particularly by the DTI, with regards to beneficiation strategies.

2.2.1. Mining law and regulations

The SSM sector in South Africa is regulated through the Mineral and Petroleum Resources and Development Act (MPRDA) 2002. It is important to note that this relates to a different categorisation of the sector from that elaborated in Section 2.1.2 above using the SIC codes. What is regulated by the MPRDA relates to the strict mining value chain activities. Some of the downstream activities are considered manufacturing, and are regulated by other legislative instruments, and are the mandate of the Department of Trade and Industry.

The nature of small-scale mining activities is often the basis for what is allowable in the licensing of small scale mining activities. For example in the MPRDA, even though there is no specific mention of the term small-scale mining, a mining permit whose provisions are in keeping with what is generally accepted as small-scale activities is provided for. These provisions are also made in such a way as to facilitate less onerous obligations for this class of license compared to that for industrial scale operations. The mining permit allows for an area of not more than 1.5 hectares, and is valid for a period of 2 years renewable 3 times for periods of less than one year. The operation is therefore limited to a period of not more than 5 years. The aerial extent limitations present challenges for commodities that are shallow and need to cover large areas like alluvial diamonds. The mining permit is not transferable, and cannot be ceded or sublet, which may present exit barriers for the operators, which could in turn lead to higher incidences of abandonment.

The obligations for environmental management are elaborated in the MPRDA and the regulations. The MPRDA provides for a less onerous environmental management plan (EMP), which the potential operators can complete on their own with little assistance from a professional. The obligations of the environmental plan include financial provision. This provision presents a barrier for many people wanting to enter the sector at this level.

Within the Department of Mineral Resources (DMR) there is a Directorate for Small-scale Mining. This department was set up to implement government policy with regards to supporting development of the SSM sector (refer to Section 2.3.1 on “Enterprise Support”). One of the challenges is the low level of compliance in the sector. For example, the DMR reported that low compliance with requirements in Section 28 of the MPRDA to submit monthly production reports makes it difficult for government to accurately quantify the mineral production and other statistics of the sector, even for licensed activities.

2.2.2. Mine health and safety

The health and safety of small mines is regulated by the Mine Health and Safety Act (MHSA), 1996 and amendments. The MHSA, like the MPRDA, is applicable only to activities that are strictly related to the mining value chain. Other activities that relate to some downstream activities and services incidental to mining are regulated by other instruments some of which fall under the DTI and DoL. The Mine Health and

Safety Council was set up in accordance with sections 43 and 44 of the MHSA. Its mandate is to advise the Minister on issues of legislation, research and promotion of occupational health and safety in the mining industry. It also oversees research in the mining sector pertaining to issues of health and safety.

Amendment of Section 10 of the MHSA (Act 74, 2008) has certain stipulations about the provision of safety, health and environment (SHE) training. It requires that employers keep training records for individual employees and also submit WSPs and ATRs.

Some training providers to the SSM sector and SSM operators are concerned about the amount of time workers have to spend on the obligatory training required by the regulations. In as much as they appreciate the need for this training, some are concerned that the training to produce a skilled workforce might be suffering, because there is less time and resources allocated to it. Concerns for small organisations also relate to the cost to the organisation in the undertaking of the training, as well as the hours lost from production. Therefore a balance needs to be found where both types training can be done to the extent that it is required.

2.2.3. Environment

The obligations of environmental management are regulated by National Environmental Management Act (NEMA) 1998. Section 2 of NEMA provides for the relationship between itself and other organs of state and legislative instruments, on how the law should be interpreted for planning and implementation of environmental management. In the case of mining it guides the environmental provisions of the MPRDA (mentioned in Section 2.2.1)

2.2.4. Beneficiation

The beneficiation and value adding of minerals in South Africa is supported by several pieces of legislation. The MPRDA provides for the promotion of beneficiation. Implementation of government policy on beneficiation is supported by the Directorate for Beneficiation Promotion, the State Diamond Trader (SDT) and Diamonds and Precious Metal Regulator (DPMR). The Diamond Amendment Act 29 of 2005 provided for the establishment a State Diamond Trader and the Diamond Regulator.

The Precious Metals Act 37 of 2005 provides for the acquisition, smelting, refining, beneficiation, use and selling of precious metals. The beneficiation and refining is licensed through the Diamonds and Precious Metal Regulator. The mandate of the DPMR is to promote the beneficiation of South African diamonds and precious metals and to ensure equitable access. It is not yet clear what the impact of the SDT has been on diamond producers. However, some of the concerns raised are about how implementable the guidelines are with regard to the disposal of diamond mine production for small operators.

2.2.5. Labour and skills

The policies and legislation concerned with labour and skills include:

- National Qualification Framework Act 2008
- Skills Development Act 1998
- Basic conditions of employment Act 1997
- Employment Equity Act 1998

DOL and DHET are responsible for labour and skills development issues. DoL is responsible for the core labour issues and enforcing labour legislation, for example the standard industrial classification codes (SIC) are in the Constitution and outlined by DoL. The SIC codes assigned to the MQA include core mining activities by commodity, as well as for services incidental to mining such as catering , security, consultants etc. All organisations with these SIC codes are to be registered with the MQA.

The National Qualifications Framework (NQF) is the key national policy in the transformation and integration of education and training. Its development and implementation is overseen by the South African Qualifications Authority (SAQA). The sub-framework that relates to the Skills Development Framework and training done through the MQA (i.e. Trades and Occupations) is called the Occupational Qualifications Framework (OQF). The NQF provides for the establishment of the Quality Council for Trade and Occupations (QCTO) to develop and manage the framework for Trades and Occupations, and is responsible for design, development and delivery of quality learning and qualifications. Its main objective is to align training interventions with requirements of the job and occupations.

The MQA has a service level agreement with DoL which details the targets that DoL expects to be achieved during a specific period of time. Some of the other structures associated with DOL are the National Skills Authority (NSA), the sector education and training authorities (SETAs), Unemployment Insurance Fund (UIF), and the CCMA. The NSA is in charge of formulating the National Skills Development Strategy (NSDS) and for allocation of the National Skills Fund (NSF).

DOL through the Commission for Conciliation Mediation and Arbitration (CCMA) is also in charge of the “Training lay-off Scheme”. SMMEs are more vulnerable to job losses and could benefit from this kind of intervention, but it is not clear to what extent they have benefited from it. It is reported that uptake of the scheme by mining companies has been quite low. This might be due to the structure of the programme and the limited duration of the interventions for individual employees facing retrenchment.

The responsibility of the National Skills Development Strategy now lies with the Department of Higher Education and Training (DHET). The MQA’s targets on supporting the small organisations, including non-levy payers, are outlined in the National Skills Development Strategy (NSDS) II. However, the draft of NSDS III is currently being reviewed. It will be important to consider the targets that have been set in that strategy and how they will affect the provision of skills for the SSM sector for the next five years.

2.2.6. Business operation

The National Small Business Act (NSBA) 1996 defines a small business in mining and quarrying as one that employs less than 50 workers, has annual turnover of less than R7.5 million and a gross asset value of R4.5 million. Smaller categories are also provided, i.e. very small with less than 20 employees, R3 million annual

turnover and R1.8 million gross asset value and micro with less than 5 employees, R0.1 million annual turnover and gross asset value R0.15 million. This act also provided for the formation of the National Small Business Advisory Council, whose mandate is to advocate for SMMEs, monitor policies, programs and institutions charged with supporting the SMME sector. The NBSA Amendment of 2004 provided for the establishment of Small Enterprise Development Agency (SEDA). SEDA was established for the implementation of government policy for supporting development of small enterprises.

The current DTI high level strategies for SMMEs are set out in the Industrial Policy Action Plan (IPAP) II. These strategies are actualised through several entities linked to the DTI. IPAP II indicates “...downstream mineral beneficiation...” as one of the areas in which it advances other government “Economic Clusters”. With specific reference to small organisations IPAP II sets out goals on structuring a gold loan scheme that will assist in overcoming the issue of gold metal supply for small jewellers. Another area in which IPAP II advances the goals of the minerals sector through SMMEs is in the Cultural Industries Sector Program. Mineral-based craft produced by small organisations will benefit from the craft hubs which are being supported by the DTI. The craft hubs offer an integrated enabling environment through which rural based small craft producers can access design and production support, skills and markets (both local and global).

2.3. Key Development Issues

When looking at the SSM sector in South Africa as a livelihood activity and an industry there are certain developmental issues that need to be considered. These include enterprise support, provision of skills and knowledge for the development of the sector, access to technology, finance etc., licensing and formalisation, and gender equity

2.3.1. Enterprise support

Support for small enterprises should try to cover all the operational needs of the business. In the case of the SSM sector it should cover the whole mining value chain. Both public and private entities have been supporting the development of the SSM sector in South Africa. Private consultants also service this sector. However, services offered by private consultants are often prohibitively expensive for most aspiring SSM operators. Upstream of the value chain, SSM operators are concerned with access to mineral deposits and where to find information on where the opportunities lie with regards to mineral deposits. This kind of information can be available from several sources. The Council for Geoscience (CGS) is the government body mandated with providing mineral deposit information and support on evaluating mineral deposits. At the same time the potential SSM operator has to be licensed to operate the mine. Through the SSM Directorate at DMR assistance is rendered in obtaining a mining permit.

It is reported that the DMR is currently working on a strategy and implementation plan for the SSM sector in South Africa. This is meant to provide a framework for interventions of parastatals and other entities serving the sector. In addition, the Directorate also offers other support in the start-up of a small-scale mining

venture. This was previously rendered through the National Steering Committee of Service Providers to Small-scale Miners (NSC), which was later replaced by the SSM Board, with the CGS as the technical management partner.

Through the SSM Board CGS handled 197 projects of which 173 were mining and 24 were beneficiation projects. These were for different commodities including gold, sand, clay, diamonds, coal and silica. The split for the small scale mining projects by province was; Eastern Cape -11, Free State – 39, Gauteng – 8, KwaZulu Natal – 30, Limpopo – 22, Mpumalanga – 10, Northern Cape – 36, North West – 8 and Western Cape – 9.

At a practical level implementation of DTI policy in supporting SMME development is spearheaded by SEDA, with its SMME incubation program. SEDA supports one incubator in the mining industry that is the Zenzele Technology Demonstration Centre (ZTDC).

2.3.2. Skills and knowledge

The role of the MQA with the regards to small organisations in the mining sector is to support the provision of skills and knowledge.

The organisations with SIC codes assigned to the MQA must register with them and should submit Work Skills Plans (WSP) and Annual Training Reports (ATR) to the MQA. These are also the same organisations that receive support from the MQA. However, there are challenges in that regard. These mostly relate to the re-assignment of some enterprises to the MQA, for example, brickmaking and jewellery manufacturing. Some of these newly reassigned entities are not yet registered with the MQA. Jewellery manufacturers that also retail, like a lot of the small-scale ones, have activities that fall into both the MQA and the retail SETA. In addition, some of them have been allocated incorrect SIC codes by SARS.

The needs of the sector should be identified through analysis of WSPs which should indicate the scarce skills of the different companies. However, it is the experience of the MQA that the process does not result in the adequate capture of the needs of small organisations. In their experience small organisations often need more generic training than larger organisations. The MQA also supports research on pertinent issues to address the needs of the sector. Currently they are conducting a survey of all small organisations including non-levy payers. However, identifying non-levy payers is a challenge. The survey is profiling workforce by gender, race, disability etc., as well as recording the type of training undertaken and also assessing the training needs. The objective of the survey is to get a clearer picture of the training needs of the small organisations than can be obtained from the WSPs.

The difficulties faced in accessing rough diamonds by cutters and polishers are also faced by training providers that train in diamond cutting and polishing. Without access to rough diamonds the training providers are unable to deliver the practical component of the training programs. Hence the quality of the training is compromised, with learners exiting only with theoretical knowledge but no skills on how to cut and polish diamonds. This has reduced the uptake of the courses pushing training providers into taking more

foreign trainees who either are not fussy about forgoing the practical component or can provide their own rough diamonds.

The training offered to the SSM sector and supported by the MQA is derived from SAQA registered unit standards, skills programs and qualifications. Some of these are developed by the Technical Reference Group (TRG) 23, a structure within the MQA. TRG23 is made up industry experts and meets on a regular basis to develop unit standards, skills programs and qualifications for the SSM sector. Unit standards, skills programs and qualifications from other TRGs in the MQA are used and even from other sector education and training authorities (SETAs) depending on the structure of the skills program and qualification and also the needs of the SSM beneficiaries. The qualifications currently registered by the MQA include (at NQF level 2):

- Small-scale mining
- Jewellery manufacturing

There are currently only three training providers accredited by the MQA to provide SSM training. Blue Nightingale and Siyemba are small and relatively newly established entities still building their capacity. Blue Nightingale has trained a **total 263 learners**, most of who are in the diamond sector from the Northern Cape and the North West Provinces. The training was conducted in the respective provinces near where the beneficiaries come from. The third accredited training provider is Mintek which is more established and more resourced, with institutional support to undertake extensive training programs, and to provide the complete requirements including assessment and moderation. Since its accreditation Mintek has trained 3520 individuals in programs ranging from theoretical understanding of mining to practical hands-on skills like pottery and jewellery making. They also trained on a skills program for safety, health and environment (SHE). The beneficiaries have been from all the nine provinces. Some of the training done by Mintek involved bringing the trainees to its premises in Johannesburg, providing accommodation and a stipend. But some of the training was done nearer the areas where the beneficiaries came from. Since 2004 Siyemba has trained 1260 sponsored by the MQA.

Other training providers accredited to provide training small organisations that fall under the MQA are concerned with downstream skills like jewellery making and those that offer training in occupational health and safety.

MQA's Annual Report for 2008/9 gives a perspective of the skills and knowledge interventions for small organisations supported by the MQA which include the following; training for small BEE firms, and support for community based organisation (CBO) and NGOs, and training for new entrants.

2.3.3. Technology

Technology issues are key to the development of SMMs in the mining industry. Even though the technology requirements are unique for each step in the value chain, issues of access to technology are the same. The institutions currently concerned with technology development and transfer in South Africa include both public and private organisations. Perhaps the most notable institutions linked to government are Mintek and

CSIR. In addition, initiatives for incubation like ZTDC and the Platinum Incubator in Rustenburg are also linking technology and skills transfer. Some academic institutions are also involved, particularly with product design of mineral based products like ceramics, e.g. the University of Johannesburg. Equipment manufacture for the SSM sector is by small private enterprises, and it is not clear to what extent this is informed by the needs of the sector. However, given that these are commercial enterprises one can hope that their marketing strategies are based on customer requirements. A lot of these enterprises are manufacturing the type of equipment that is replacing imports from places like Canada and Australia. Mintek has also been involved in developing prototypes for some “appropriate technology” interventions.

The challenges related to technology concern determination of the needs of the sector. Without a good understanding of the sector it is difficult to have a good match between the technology needs of the sector and what is being currently being developed and transferred. This also links to the structure of interventions to transfer technology. To date incubation has been the modus operandi for technology transfer. However, the success of the incubators is difficult to demonstrate without evaluation of the impact of previous interventions.

2.3.4. Finance

All enterprises need funding either to start-up their businesses or to grow. There are not many sources of funding available to the SSM sector. Mainstream financial institutions consider mining to be too risky to finance and regard the SSM sector even riskier. The conditions of the mining permits also make it less attractive for the potential investor. The limited duration of the license as well as the size of the resource does not make for a very good business case.

Many of the funding organisations that operate in the mining sector only fund junior mining companies, not small projects. These include IDC, Khula and Anglo Zimele. One of institutions interviewed offer funds to mineral projects but with a cut-off minimum of R1 million, but they did not have a specific policy or products on lending to small organisations. The only funding available is linked to incubation interventions funded by a third party, for example through ZTDC and Mintek. ZTDC receives funding from SEDA Technology to incubate small organisations in mining. Mintek sources funds from a variety of donor sources with no specific focus on mining to incubate SMMEs in the minerals industry. These donors include the National Lottery, Distribution Trust Fund, and development agencies. The DMR offers funding through its SSM Board. The SSM Board pays for services rendered to the potential SSM operator for feasibility work done by consultants. Sometimes it also grants working capital and funding for skills transfer.

Given the constraints of accessing finance by the SSM sector, other innovative ways have to be found to support the sector. Some of the ways might be linked partnerships with large scale mining (LSM) and development institutions. The International Finance Corporation (IFC) of the World Bank Group has worked with LSM to structure interventions that support small enterprises. Such interventions are driven by the partner LSM as part of their social imperatives for social license to operate, mitigate the negative impacts of mining and facilitate local development. It is usually a two pronged approach. On one hand the objective is to support the development of a local supply chain linked to servicing the LSM. On the other hand the interventions support local economic development outside of the mining value chain. This concept has been

implemented in some African countries with good levels of success, for example the MozLink project at Mozal in Mozambique.

Umsombobvu Youth Fund which falls under DOL was established to support youth entrepreneurship, job creation, skills development and transfer. It supports enterprises through the following offerings:

- Enterprise finance – microfinance R1 000-R100 000, SME funding R100 000-R5 million,
- Entrepreneurship training

It is not evident what support Umsombobvu has given to mineral related projects.

2.3.5. Gender Equity

Gender equality in the SSM sector is aspired to just as in the mainstream mining industry. Gender equity goals are considered from two perspectives in the mining sector. First, is the participation of women as entrepreneurs in the sector and second is as workers of enterprises in the sector. Working towards gender equity in the business, there are interventions to build the capacity of women and also affirmative action interventions. This includes the support of women's organisations like the South African Women in Mining Association (SAWIMA) and its investment arm SAWIMIH Pty Ltd. Capacity building interventions have been run by the MQA and their mainstream training programs are expected to achieve certain targets of women's participation. Some LSM companies have also supported empowerment initiatives, either as individual companies or as part of the Chamber of Mines South Africa. Perhaps the biggest impact has been achieved through broad-based black economic empowerment (B-BBEE). LSM companies have supported women SMMEs by subcontracting certain services for their operations.

2.3.6. Organisation

The general impression is that organisation in the SSM sector is not well developed. This is particularly true for upstream activities. There have been attempts supported by the then Department of Minerals and Energy to organise the sector. An association which called itself the South African Small-scale Mining Chamber was formed. However, it is not very clear what its current status is. Again the capacity to organise is not well established. The South African Women in Mining Association has had greater success, to the extent that it went as far as establishing an investment arm. SAWMA has provincial branches and it has been supported by LSM. The MQA has worked with SAWIMA on training programs targeted for the benefit of women.

Downstream and quarrying activities seem to be faring better at organisation. Two associations stand out, that is the Jewellery Council of South Africa (JCSA) and the Diamond Council. The Diamond Council has a membership total of 191, made up of rough diamond dealers and beneficiators. Both these organisations work very closely with the MQA on strategies for delivering training to members of their constituency. For

example the both JCSA and the Diamond Council are working closely with the MQA on implementation of the MQA Jewellery project.

3. What issues have emerged?

3.1. Understanding the sector

The following issues are emerging with regards to managing the sector:

- Who is operating in the sector and what challenges do they face? Who is informal? Who is illegal? What is the degree of formality?
- What challenges do service providers need to overcome to support development of the sector?
- What are the boundaries of the sector? Are they different depending on who is interfacing with the sector?
- Is there need for a baseline study? To what extent would this impact what training can be offered to the sector?
- What are the lessons to be learnt from past interventions?
- Is there a need to disseminate the law? Are the provisions of the law appropriate?

3.2. Coordination and collaboration

Given the myriad of stakeholders in the sector, the following questions are emerging with regards to coordination and collaboration in supporting the sector:

- Is there a strategy for the sector and how can it direct interventions for maximum impact?
- What linkages are necessary to ensure optimal development?
- How can service offerings be integrated? What of the idea of a “one-stop shop”?
- Who should and can participate in this collaboration?
- How can LSM imperatives be linked to the needs of small organisations in the minerals sector and what would be the role of development institutions?
- What are the drivers of formal and informal activities?

3.3. Structuring of the training

The ultimate questions for the MQA and its partners concerning structuring of training are:

- What training should be offered to operators in the sector and their workers?
- How does one deal with prospective participants? What is the best way to identify their training needs?
- What is the best way to deliver training? How does one translate qualifications into training programs?

- How does one balance development of a skilled workforce (work skills requirements) and delivering mandatory safety, health and training (SHE)?
- How do you ensure quality delivery?
- What exit strategies should be in place for both new entrants and entities already in the sector? How do you ensure the practical component of training programs?
- How will a new concept like the Skills Development Institutes be actualised for the SSM sector?

3.4.How to build capacity

The key issues emerging with regards to capacity building are:

- How do you facilitate access to finance for small organisations?
- How do you overcome the challenge of limited resources for support interventions such as training programs?
- How do you build capacity in small training providers?
- How do you increase formalisation and compliance?
- What can we learn from examples of good practice?
- How do you enhance capacity for organisation and advocacy?
- What should be done about the cost of compliance?

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5. Appendices