



# **MINING QUALIFICATIONS AUTHORITY**

## **STRATEGIC PLAN**

### **FOR**

**2015/16 – 2019/20**

NOVEMBER 2016



MINING QUALIFICATIONS AUTHORITY



# FOREWORD

## “Digging with Skills and Knowledge”

The Mining Qualifications Authority's strategic planning process is guided by the Medium Term Strategic Framework (MTSF), which reflects political outcomes priorities, the Framework for the National Skills Development Strategy; and the National Small-Scale Mining Development Framework. This is in line with changes in government's approach to planning, monitoring and evaluation aimed at translating the government's election mandate into reality. The mining and minerals industry currently employs about 495 000 direct workers and 150 000 indirect workers. In this regard the Mining Qualifications Authority (MQA) plays a vital role in the mining industry, which forms a fundamental component in South Africa's economy. The MQA developed its strategic priorities for the last year of the National Skills Development Strategy III (NSDS III) period and beyond, by developing the necessary skills development policies for the mining and minerals sector. The skills sector plan (SSP) which was updated in August 2016, gives effect to the policies and provides a concrete plan for the MQA to achieve its objectives.

The MQA is fully committed to achieving its goals by ensuring that the skills and human resources base of the mining sector workforce is strengthened, improving health and safety awareness among the workforce and building cohesion to advance national government priorities in the mining and minerals sector.



## OFFICIAL SIGN-OFF

It is hereby certified that this Strategic Plan:

- Was developed by the management of the Mining Qualifications Authority under the guidance of the Board and the Honourable Minister of Higher Education, Dr B Nzimande;
- Takes into account all the relevant policies, legislation and other mandates for which the Mining Qualifications Authority is responsible; and
- Accurately reflects the strategic outcome-orientated goals and objectives which the Mining Qualifications Authority will endeavour to achieve over the period 2015/16-2019/20.



**Tebogo Mmotla**  
Acting Chief Executive Officer

**AmonTeteme**  
Labour Convenor



**Vusi Mabena**  
Employer Convenor



**Mthokozisi Zondi**  
Chairperson of the Board





# CONTENTS

|                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| <b>PART A – STRATEGIC OVERVIEW</b>                                    | <b>7</b>  |
| 1 Vision.....                                                         | 8         |
| 2 Mission.....                                                        | 8         |
| 3 Values .....                                                        | 8         |
| 4 Legislative and other mandates.....                                 | 8         |
| 4.2 Legislative mandates.....                                         | 9         |
| 4.3 Policy mandates.....                                              | 9         |
| 4.4 Relevant court rulings.....                                       | 10        |
| 4.5 Planned policy initiatives.....                                   | 11        |
| 5 Situational analysis.....                                           | 11        |
| 5.1 Performance environment.....                                      | 11        |
| 5.2 Organisational environment .....                                  | 16        |
| Appendix 1 –MQA Orgonogram                                            |           |
| 5.3 Description of the strategic planning process .....               | 18        |
| 6 Strategic outcome-oriented goals of the institution.....            | 19        |
| <b>Part B - Strategic Objectives</b>                                  | <b>20</b> |
| 7. Programmes .....                                                   | 21        |
| 7.1. Strategic objectives.....                                        | 21        |
| 7.2 Resource consideration .....                                      | 21        |
| 7.3 Risk management.....                                              | 21        |
| <b>Part C - links to other plans</b>                                  | <b>29</b> |
| Appendix 1 –MQA response to the DHET proposed targets                 |           |
| 8. Links to the long-term infrastructure and other capital plans..... | 30        |
| 9. Conditional grants.....                                            | 35        |
| 10. Public entities.....                                              | 35        |
| 11. Public-private partnerships.....                                  | 35        |





## Acronyms and abbreviations

|             |                                                                       |
|-------------|-----------------------------------------------------------------------|
| APP         | Annual Performance Plan                                               |
| ATP         | Accredited Training Providers                                         |
| ATR         | Annual Training Report                                                |
| CBO         | Community Based Organisations                                         |
| CEO         | Chief Executive Officer                                               |
| CIP         | Consumer Price Index                                                  |
| CSTO        | Coordinating SETA-TVET College Offices                                |
| DHET        | Department of Higher Education and Training                           |
| EE          | Employment Equity                                                     |
| ETQA        | Education Training and Quality Training                               |
| FLC         | Foundational Learning Competence                                      |
| GCC         | Government Certificates of Competence                                 |
| HDSAs       | Historically Disadvantage South Africans                              |
| HEI         | Higher Education Institutions                                         |
| HET         | Higher Education and Training                                         |
| HRDC        | Human Resources Development Council                                   |
| HRDCATD-TTT | Human Resources Development Council Artisan and Technical Development |
| ILO         | International Labour Organisation                                     |
| IPAP        | Industrial Policy Action Plan                                         |
| LED         | Local Economic Development                                            |
| LM          | Learning Material                                                     |
| M&E         | Monitoring and Evaluation                                             |
| MOU         | Memorandum of Understanding                                           |
| MQA         | Mining Qualification Authority                                        |
| MTSF        | Medium-Term Strategic Framework                                       |
| N2          | NATED Programmes                                                      |
| NC(V)       | National Certificate ( Vocational)                                    |
| NCOP        | National Council of Provinces                                         |
| NDP         | National Development Plan                                             |

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| NGO       | Non-Government Organisation                                                  |
| NSF       | National Skills Fund                                                         |
| NLPE      | Non Levy Paying Enterprises                                                  |
| NQF       | National Qualifications Framework                                            |
| NSDS      | National Skills Development Strategy                                         |
| NSDSIII   | National Skills Development Strategy III                                     |
| GDP       | Graduate Development Professional                                            |
| OHS       | Occupational Health and Safety                                               |
| P1 and P2 | Practical Session 1 and Practical Session 2 undergraduates                   |
| PIVOTAL   | Professional, Vocational, Technical and Academic Learning programmes         |
| PSDF      | Provincial Skills Development Forum                                          |
| QA        | Quality Assurance                                                            |
| QCTO      | Quality Council for Trade and Occupations                                    |
| QMR       | Quarterly Management Report                                                  |
| RPL       | Recognition of Prior Learning                                                |
| SAIVCET   | South African Institute for Vocational and Continuing Education and Training |
| MHSC      | Mine Health and Safety Council                                               |
| MMS       | Mining and Mineral Sector                                                    |
| SAQA      | South African Qualifications Authority                                       |

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## PART A: STRATEGIC OVERVIEW

## 1. Vision

A competent, health and safety-orientated Mining and Minerals workforce.

## 2. Mission

To ensure that the Mining and Minerals Sector (MMS) has sufficient competent people to improve health and safety, employment equity and increase productivity standard.

## 3. Values

The Mining Qualifications Authority subscribes to the following values:

- a) Continuous learning;
- b) Empowerment;
- c) Professionalism;
- d) Honesty and mutual respect; and
- e) Service excellence.

## 4. Legislative and other mandates

The MQA is a statutory body that has the primary mandate of coordinating skills development processes and programmes in the MMS. The primary objective of the MQA is to support the MMS to continuously develop sufficient competent persons in occupations that are core to the MMS.

The legislative framework that the MQA operates under comprises of three primary statutes being the:

- a) Mine Health and Safety Act of 1996;
- b) Skills Development Act of 1998; and
- c) Mineral and Petroleum Resources Development Act of 2002.

The MQA is guided by the above statutes within the framework of controls of the:

- a) Public Finance Management Act;
- b) Preferential Procurement Policy Framework Act;
- c) Skills Development Levies Act;
- d) Audit Act; and
- e) King III Governance Code of Conduct.

### 4.1 Legislative and other mandates

Section 29(1) & (2) of the Bill of Rights states that everyone has the right to a basic education, including adult basic education and further education, which the state, through reasonable measures, must make progressively available and accessible.

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## 4.2 Legislative mandates

**4.2.1 The Mine Health and Safety Act, 1996, (Act 29 of 1996) Section 41 (3) established the MQA on 14 June 1996 to advise the Minister of Minerals and Energy (now the Minister of Mineral Resources) on –**

- a) The creation of a framework for qualifications and learning achievements in the mining industry to improve health and safety standards through proper training and education;
- b) Standards and competency setting, assessment, examinations, quality assurance and accreditation in the mining industry; and
- c) Linking the qualifications framework for the mining industry to the National Qualifications Framework referred to in the National Qualifications Framework Act, 67 of 2008.

**4.2.2 The Skills Development Amendment Act, 2003 (Act 31 of 2003), Section 4A of Schedule 2 “re-established” the MQA as follows:**

Despite anything to the contrary in either this Act or the Mine Health and Safety Act, 1996 (Act 29 of 1996) and with effect from 20 March 2000, the Mining Qualifications Authority, established in terms of Section 41(3) of the Mine Health and Safety Act, 1996 must be regarded as having been established in terms of section 9(1) of this Act as SETA 16.

**4.2.3 The Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) establishes that the Minerals and Mining Development Board must in terms of Section 58(1)(b) of this Act “in consultation with the MQA, ensure the promotion of human resources development in the minerals and mining industry”.**

## 4.3 Policy mandates

The MQA is guided, among others, by the following policy frameworks:

- a) **Medium-Term Strategic Framework (MTSF)** which reflects socio-political priorities. The MQA supports the MTSF objectives of “Speeding up growth and transforming the economy to create decent work and sustainable livelihoods”.
- b) **National Skills Development Strategy III.** The MQA supports various outcomes of the NSDS numeracy, promoting growth of the TVET sector and encouraging better use of workplace-based skills development.
- c) **Human Resources Development Strategy of South Africa.** The MQA supports skills development through projects such as management development and other transformational objectives for the sector.
- d) **National Skills Accord.** The MQA provides for artisan development, which includes unemployed and employed learners.
- e) **National Development Plan (NDP).** The MQA provides for the policy by ensuring that appropriate skills development programmes, at the further education and training band as well as the higher education and training band, are implemented.
- f) **Beneficiation Strategy.** Skills development initiatives for the mining beneficiation processes are provided for.
- g) **Broad-Based Socio-Economic Empowerment Charter for the MMS.** Various programmes have been implemented in order to support the skills needs identified for the MMS

#### **4.4 Relevant court rulings**

The MQA is a Schedule 3(a) public entity and thus, any relevant court rulings will be implemented into the operations, programmes, and activities of MQA where applicable.



## Relevant legislative developments

### National Skills Development landscape change

The Department of Higher Education & Training (DHET) published on 10 November 2015 a draft proposal for a new National Skills Development landscape which would take effect on 1 March 2018. The MQA is guided by the policies of the Department of Higher Education and Training and thus, any policy changes will be incorporated into the operations, programmes, and activities of MQA as and when the need arises.

## 4.5 Planned policy initiatives

Not applicable. The MQA is a Schedule 3(a) public entity.

## 5. Situational analysis

The below situational analysis aims to highlight the MQA's performance and environmental climate and update. This information has been collected through research within the sector and a review of the MMS related strategy imperatives informed by legislation and policy change. It gives insight into national and provincial layout of the MMS relating to its size and composition of employer and employees base. An analysis of the Sector's economic performance is critical in understanding the MMS GDP contribution and its relation to employment and skills development in the South African context.

### 5.1 Performance environment

South Africa remains one of the largest net exporters of minerals and metals. In the mining industry South Africa is an important global hub with deep backward vertical integration and a fully-fledged supply industry serving both South African and foreign companies. South Africa accounts for 96% of known global reserves of the platinum group metals (PGMs), 74% of chrome, 26% manganese and 11% of gold reserves

The below explains the MMS' value chain showing primary activities from exploration to minerals value addition and the support activities in each stage of the value chain.

FIGURE 1: MINING AND MINERALS SECTOR VALUE CHAIN

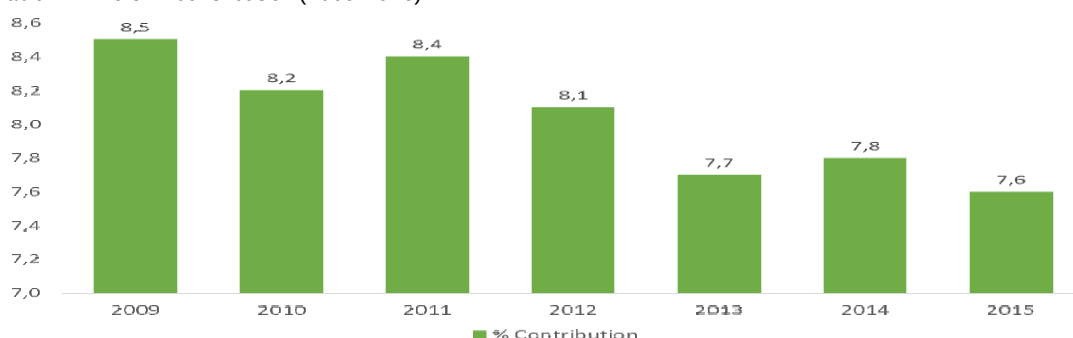


Source: Underhill Corporate Solutions illustration based on Ecopartners



The majority of the companies in Stage two are involved in primary production while Stages three to five depicts secondary production, with increasing degrees of processing, beneficiation and value addition.

Table 1: MMS GDP Contribution (2009-2016)



The MMS contribution to South African economy amounts to The MMS' contribution to South Africa's GDP has decreased by 0.9% from 2009 to 2015. It has decreased from 8.5% GDP contribution in 2009 to 7.6% in 2015<sup>1</sup>. This having being a decrease given the sector's importance to the economy, a concerning reality is that the weakening of commodity prices is not expected to recover soon. The main contributors to the decline in mining output include the following:

The national accounts data only covers mining & quarrying and not the total MMS. No separate information is available on the performance of the beneficiation components of the MMS (the diamond processing and jewellery manufacturing subsectors) and the services incidental to mining subsector. This economic overview thus focuses on the mining & quarrying sector.

- Lower global commodity prices
- Slowing demand in China
- Fewer exports for South Africa due to low global growth

The Mining Phakisa, an initiative of the Presidency, aims to expand the lifespan of the mines by locally developing the machinery required to mine narrow, hard rock reefs, which is where the majority of platinum and gold resources lie in South Africa. These resources are currently unviable to mine due to safety, health and economic reasons. Health and Safety matters can be addressed through mechanisation; however upskilling training drives will be required for all skills levels of workers, including managers and supervisors, to ensure a smooth transition to mechanisation. A focus on AET programmes up to level 4 as a way of improving literacy and numeracy levels will be important as a way of preparing existing and potential employees to operate new machinery and coordinate new processes.

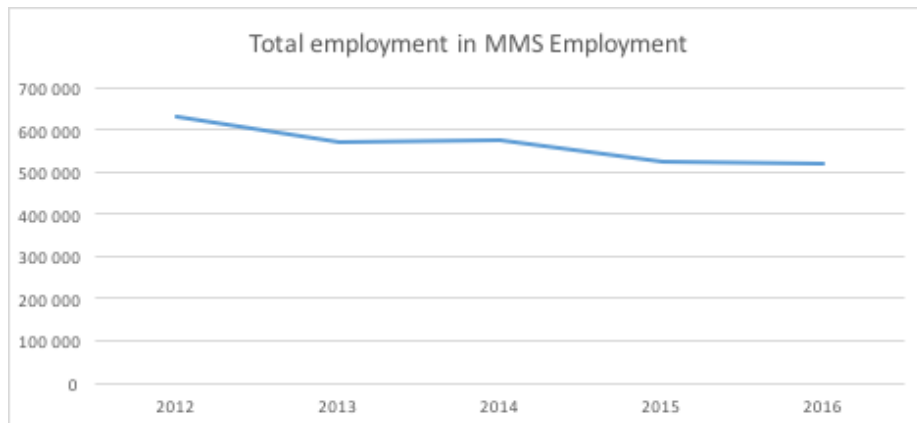
The government is currently drafting the Mineral Beneficiation Action Plan (MBAP), which seeks to advance 'local value-addition across five mineral value-chains'. The implementation of the Minerals Beneficiation Strategy and MBAP is expected to create and retain much needed jobs in the MMS. If minerals are processed locally, is potential to boost the manufacturing industry and create much needed jobs along the MMS value chain.

There are 3 out of 18 strategic infrastructure projects (SIPs) which have a direct bearing on the MMS. SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst. SIP 1 is the largest of the 18 SIPs by project value and is estimated at around R803 billion. The focus of SIP 1 is to unlock mineral resources which will generate thousands of direct jobs across the areas unlocked. SIP 4 is linked to mineral beneficiation. It involves the facilitation of development of the mining sector by opening up beneficiation opportunities in the North West province. SIP 5: The Saldanha-Northern Cape Development Corridor entails the expansion of iron ore mining production.

BELOW IS A FIVE YEAR TREND ANALYSIS OF THE MMS LABOUR PROFILE FOR THE PERIOD 2012-2016.

**Figure 2: Employee Breakdown within MMS over a 5 year period:**

Total employment in the MMS has been declining over the years. As of 31st May 2016, the MMS employs an estimated 520 003 people, which is a 1% decrease from 2015, and a 17.3% drop since 2012.

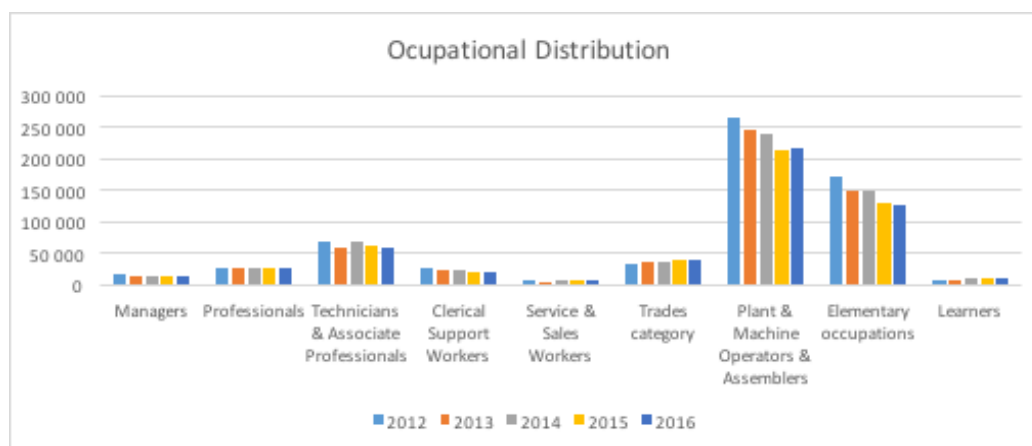


Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

Total employment in the MMS has been declining over the years. As of 31st May 2016, the MMS employs an estimated 520 003 people, which is a 1% decrease from 2015, and a 17.3% drop since 2012.

2

**Figure 3: Occupational Distribution of Labour over a 5 year period**



Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

The analysis of employment data by occupational categories shows that the biggest decreases in employment numbers are found in the elementary occupations, with a 26% decrease since 2012. Of this 18.4% are within the Plant and Machine Operators & Assemblers category. The Technicians & Associate Professionals category have experienced a 17.6% decrease since 2012.

**Table 2: Employment Equity Distribution of Labour over a 5 year period**

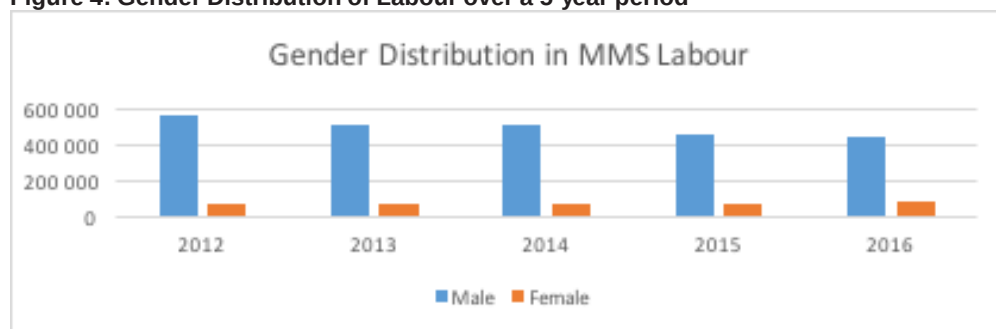
| Equity Distribution | Equity   | 2012    | 2013    | 2014    | 2015    | 2016    |        |
|---------------------|----------|---------|---------|---------|---------|---------|--------|
|                     | African  | 529 635 | 485 210 | 486 524 | 441 699 | 435 100 | -17.8% |
| • •                 |          | (84.2%) | (84.8%) | (84.5%) | (84.1%) | (83.7%) |        |
|                     | Coloured | 14 997  | 13 763  | 11 515  | 15 352  | 19 582  | +30.6% |
|                     |          | (2.4%)  | (2.4%)  | (2.0%)  | (2.9%)  | (3.8%)  |        |
|                     | Indian   | 3 167   | 2 855   | 2 879   | 2 832   | 3 907   | +23.4% |
|                     |          | (0.5%)  | (0.5%)  | (0.5%)  | (0.5%)  | (0.8%)  |        |
|                     | White    | 80 951  | 70 690  | 69 092  | 65 365  | 61 414  | -24.1% |
|                     |          | (12.9%) | (12.3%) | (12.0%) | (12.4%) | (11.8%) |        |
|                     | Totals   | 628 750 | 572 518 | 575 768 | 525 248 | 520 003 |        |

Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)



The overall composition of employees by race shows that Africans have been, and continue to be, the dominant group in the MMS. In 2016 the total employment number of Africans decreased by 0.4% between 2012 and 2016. There has been a 24.1% decrease in White employment during the same period. Coloured employment experienced an increase in numbers from 2015 to 2016 compared to the previous 4 years, The Indian group is consistently the least represented in the MMS constituting less than 1%, although the numbers increased by 38% from 2015 to 2016.

**Figure 4: Gender Distribution of Labour over a 5 year period**



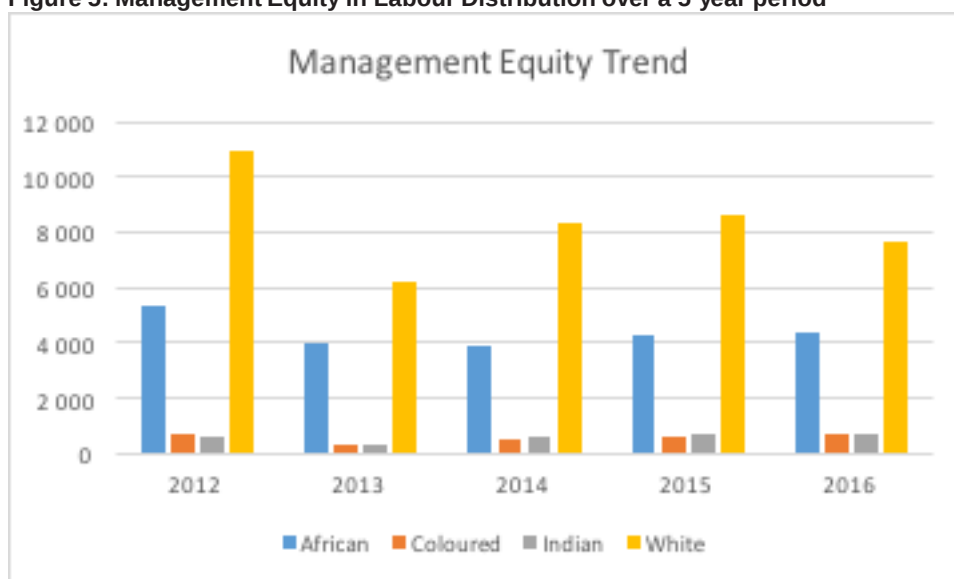
Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

Although the sector is historically male-dominated, the proportion of females has been increasing gradually, from 11% in 2012, to 14.5% in 2016.

...



**Figure 5: Management Equity in Labour Distribution over a 5 year period**



Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

In terms of Equity in management, there has been an overall increase of Africans in management positions, Coloureds and Indians. In 2012, these 3 race groups together constituted 37.7% of management, 42.4% in 2013, a decrease to 37.5% in 2014 and increase to 39% in 2015, and then showing the highest proportion across the 5 years in 2016, with 42.5% of management. Regarding gender, African, Coloured and Indian females together constitute 9.1% of management

#### IMPLICATIONS OF THE SITUATIONAL ANALYSIS FINDINGS FOR SKILLS DEVELOPMENT

The main implications for skills development in the sector are summarised below:

- There has been a decrease in employment figures over the last few years. This shows that the sector has been retrenching. The MQA and other role players need to pay special attention to the reskilling of retrenched workers so that they can be absorbed into other sectors of the formal labour market.
- The MMS is still faced with specific challenges relating to labour market profile. HDSA and women in particular are underrepresented in the MMS management notwithstanding the targets set out in the mining charter which states that women should makeup 10% of companies' workforce and at least 40% of HDSA should be in management positions. Achieving greater transformation in ownership within mining sector is also imperative as it will improve both transformational and competitiveness targets.
- There are still racial and gender disparities in the demographic composition of the industry signaling the need for role-players to continue to address workforce imbalances. The MQA might need to consider a reallocation of the discretionary grant to support industry to increase the uptake and throughput of historically disadvantaged individuals, particularly women, in the MMS training and skills development pipeline.
- The MQA is to monitor the developments of Mining Phakisa and prepare existing and potential employees accordingly in terms of skills requirement; as well as take advantage of the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to lead to increased economic activity and the creation of new jobs in South Africa

- An analysis of the skills requirements and supply mechanisms for the above is to be thoroughly researched to ascertain the nature and level of skills to develop in supporting these initiatives. Relevant skills need to be prioritised.

## 5.2 Organizational environment

The MQA recently embarked in internal reorganization which came in effect from the 1st May 2015 post approval by the MQA Board. The purpose was to streamline processes and enhance service delivery through controlled and monitored activities. This resulted in merging of some units within the MQA and strengthening key resources such as the Monitoring and Evaluation function. Given the recent audit outcome, the executive management will be implementing a turnaround strategy which will address the people, systems, processes of the MQA to ensure that there is drastic improvements in the effectiveness and delivery of the organisational mandate.

The Regional Offices were also capacitated and more staff deployed in the past financial year to ensure close contact and accessible service to the community. The MQA currently employs 111 permanent staff members supported by 12 Interns to assist the organization. Furthermore, the modus operandi between the Operations and Stakeholder Relations Department was reviewed to fast track and strengthen the delivery capabilities. Additionally, the organisational training and development plan will also be enhanced to address the immediate gaps across all levels so that the organization operates optimally.

### Permanent and Interns

|              | M         | F         | A          | C        | W        | I        | Vacant   | Total      |
|--------------|-----------|-----------|------------|----------|----------|----------|----------|------------|
| Permanent    | 39        | 67        | 94         | 7        | 1        | 4        | 5        | 111        |
| Interns      | 4         | 5         | 8          | 1        | -        | -        | 3        | 12         |
| <b>TOTAL</b> | <b>43</b> | <b>72</b> | <b>102</b> | <b>8</b> | <b>1</b> | <b>4</b> | <b>8</b> | <b>123</b> |

### Resource considerations

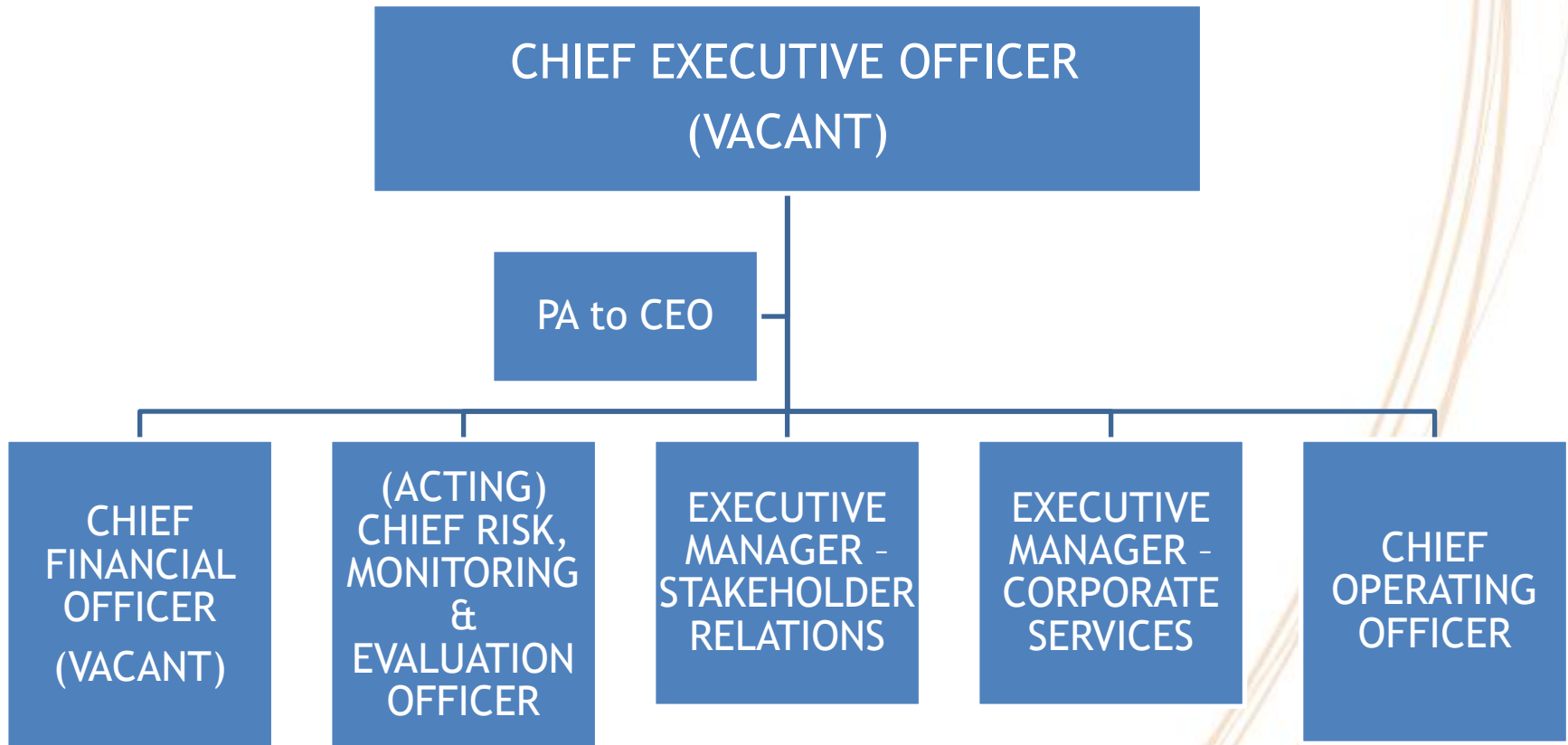
The Mining Qualifications Authority is utilising a proportion of Discretionary Grants for programmes administration and for the appointment of temporary Project Administrators and Project Officers.

Additional capacity shall assist with maintenance of 50% quarterly performance target set and achievement of 100% targets by the end of the Financial Year.

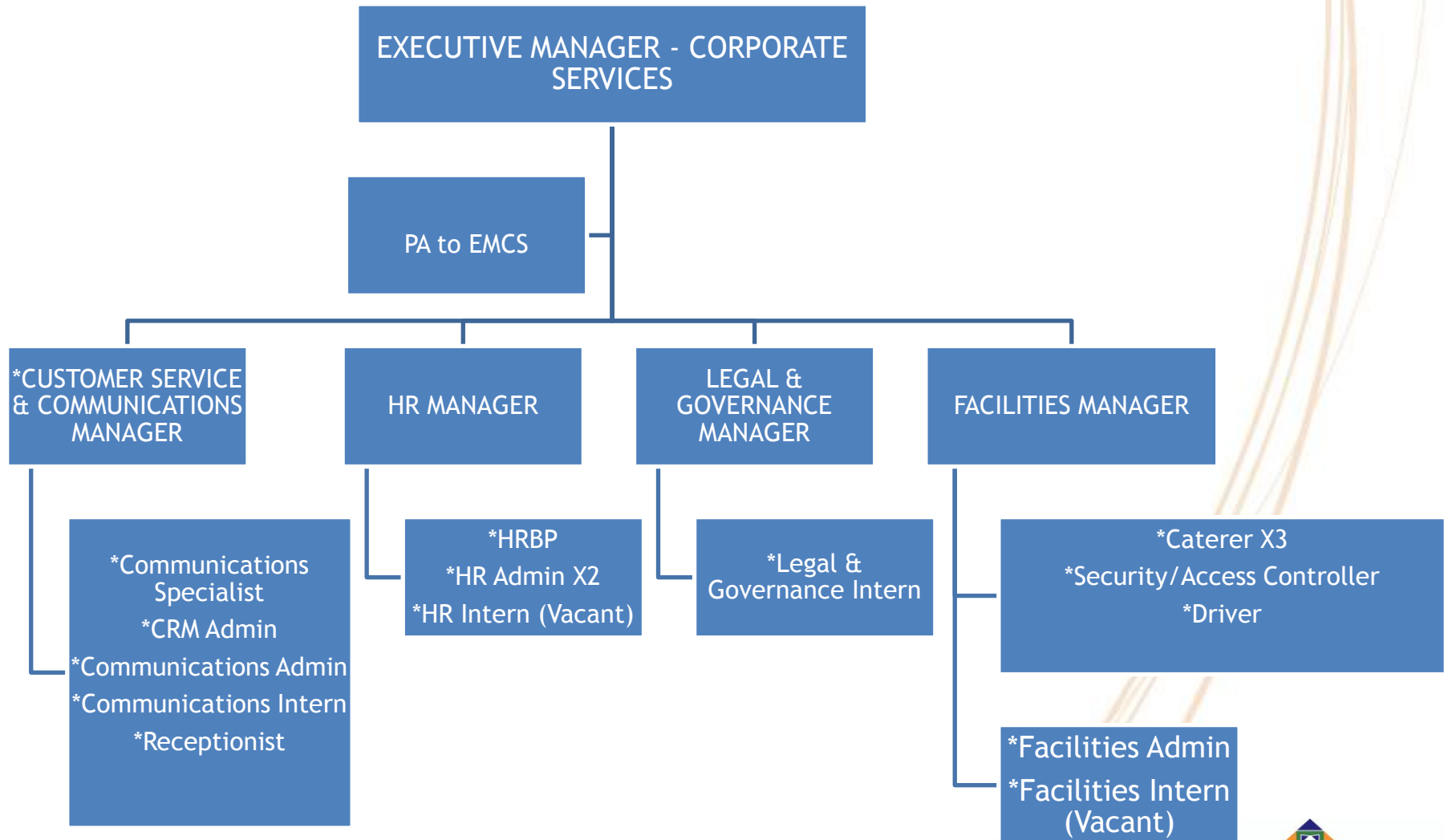
This is in line with the Learnerships Regulations.

| Performance indicator                                                               | Resources                | Expenditure               |
|-------------------------------------------------------------------------------------|--------------------------|---------------------------|
| 3.8 AET                                                                             | 2 Project Administrators | R 8 668.00 each per month |
| 3.8 FLC                                                                             | 2 Project Administrators | R 8 668.00 each per month |
| 3.3 OHS                                                                             | 2 Project Administrators | R 8 668.00 each per month |
| 3.9 Non- Artisan Learnerships<br>( RPL, Disability, Jewellery<br>and Beneficiation) | 1 Project Administrators | R 8 668.00 each per month |
| 3.1 Non- Artisan Learnerships<br>( including core)                                  | 2 Project Administrators | R 8 668.00 each per month |
| 3.7 Artisan Learnerships<br>( including Artisan Aides)                              | 2 Project Administrators | R 8 668.00 each per month |

# OFFICE OF THE CEO



# CORPORATE SERVICES BUSINESS UNIT



# FINANCE BUSINESS UNIT

CHIEF FINANCIAL OFFICER  
(VACANT)

PA to CFO

Finance Manager

IT Manager

SCM Manager

- \*Financial Controller
- \*Assistant Accountant
- \*Finance Admin X2
  - \*SDL Officer
  - \*Bookkeeper
- \*Finance Intern

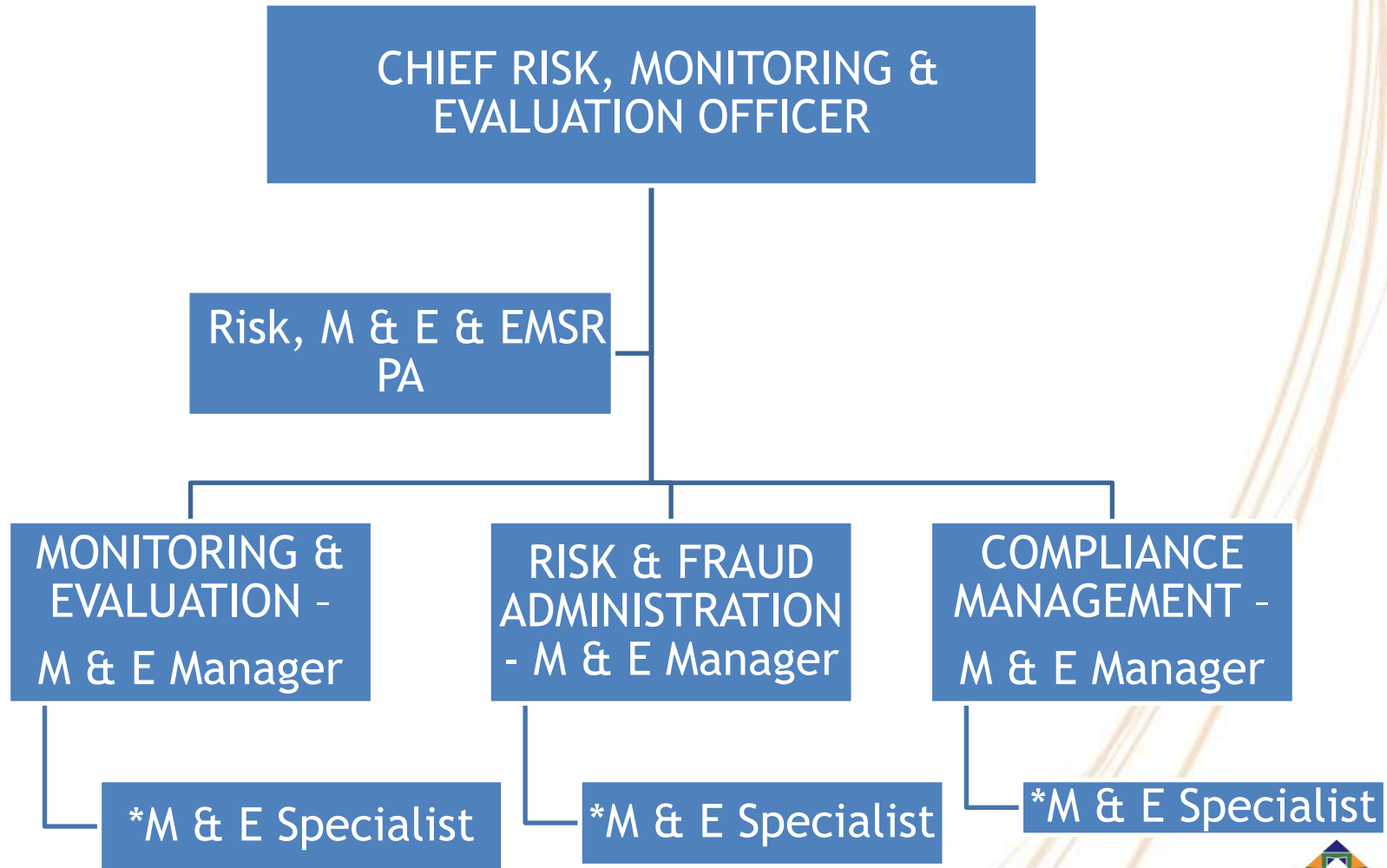
- \*Project Accountant Specialist (Vacant)
- \*Project Accountant Officer (Vacant)
- \*Project Accountant Admin (Vacant)

- \*IT Specialist (Vacant)
- \*IT Officer X2
- \*IT Intern

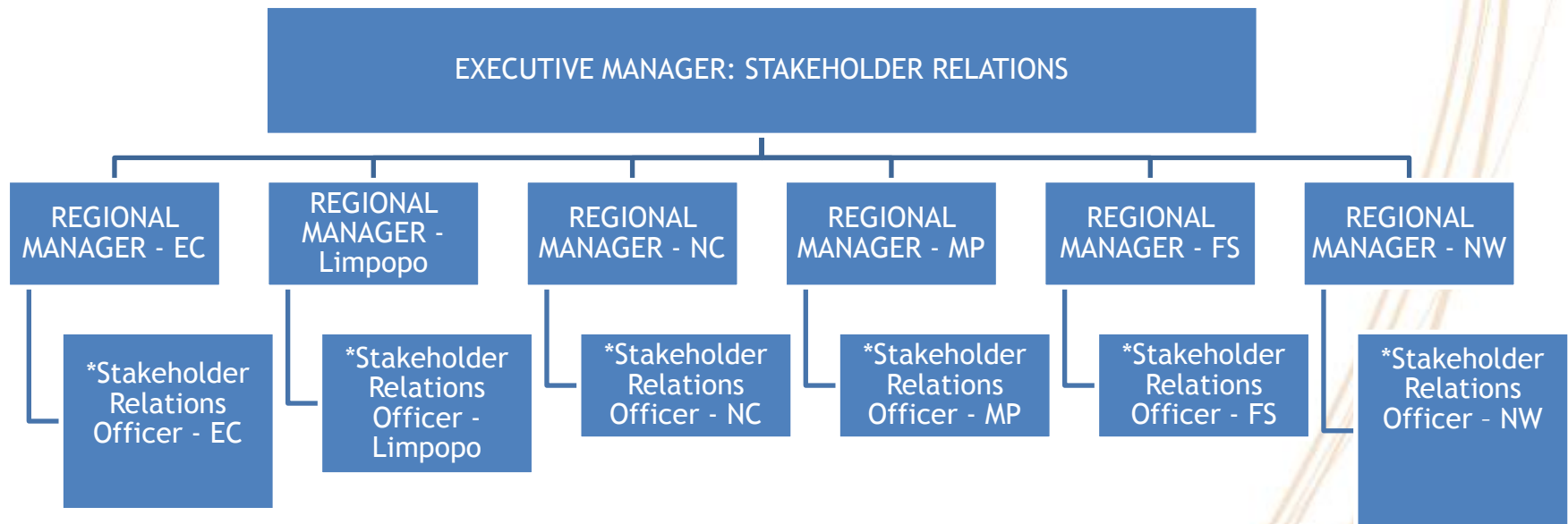
- \*SCM Specialist
- \*Administrator X2
- \*SCM Intern



# MONITORING & EVALUATION BUSINESS UNIT



# STAKEHOLDER RELATIONS BUSINESS UNIT



# OPERATIONS BUSINESS UNIT

CHIEF OPERATING  
OFFICER

PA to COO

STRATEGIC  
PLANNING  
MANAGER

\*Snr Planning  
Administrator

SDR MANAGER

\*SD Specialist  
\*SDR Specialist  
\*SDR Admin  
\*Research  
Admin

SDR Intern  
(Vacant)

LP MANAGER: OPERATIONS  
PROJECTS

\*Non-artisan Specialist  
\*OHS & FLC Specialist;  
\*AET Specialist  
\* Artisan Development  
Specialist

\*Artisan  
Development Admin  
(X4)  
\*Non-artisan  
Learnership  
\*OHS & FLC Admin  
\*AET Admin  
\*Special Projects  
Admin (Vacant)

\*LP Intern x2

LP MANAGER:  
STRATEGIC PROJECTS

Strategic Projects  
Specialist  
\*Internships  
Specialist  
\*Bursary Specialist  
\*Work Experience  
Specialist

Work Experience  
Admin  
\*Projects Admin  
\*Internships Admin  
\*Bursary Admin

\*Strategic projects Intern

ETQA Manager

\*QA Specialist  
\*Learning Material Specialist  
\*ETQA Specialist X2  
\*Program Evaluation  
Specialist  
\*Monitoring & Learner  
Achievement Specialist

\*Certification Admin X5  
\*ETQA Admin  
\*ETQA Admin (Vacant)  
\*QA Admin X2  
\*Accreditation Admin

ETQA Interns X2



### 5.3 Description of the strategic planning process

The MQA has consulted with various stakeholders to inform the strategic plan:

| Committee(s)                                                                                                                                                                           | Date(s)                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Executive Committee/CEO session                                                                                                                                                        | 03 June 2016                 |
| Operations Unit Line Managers (Strategic session)                                                                                                                                      | 28 & 29 July 2016            |
| Board (Strategic session)                                                                                                                                                              | 29 August 2016               |
| MQA Executive consolidation of inputs from all relevant stakeholders including: <ul style="list-style-type: none"><li>• State</li><li>• Organised Labour</li><li>• Employers</li></ul> | 29 August 2016               |
| Submission of the first draft Strategic Plan to DHET and National Treasury                                                                                                             | 31 August 2016               |
| Executive Management Strategic Session                                                                                                                                                 | 31 August & 1 September 2016 |
| Board Strategic Session                                                                                                                                                                | 12 September 2016            |
| Strategic Plan Feedback session with DHET                                                                                                                                              | 12 October 2016              |
| MQA executive and management session                                                                                                                                                   | 27 October 2016              |
| Submission of the Final Strategic Plan to DHET                                                                                                                                         | 15 November 2016             |

## 6. Strategic outcome-oriented goals of the institution

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strategic Outcome-orientated<br>Goal 1<br>Goal Statement | Implement an efficient, effective and transparent corporate governance system within the legislative framework                                                                                                                                                                                                                                                                                                                                                      |
| Strategic Outcome-orientated<br>Goal 2<br>Goal Statement | Provide strategic direction over the strategic plan period to leverage policy, human capital, processes and systems to deliver on the organizational mandate within the appropriate governance and legislative framework.<br>Lead sector skills planning through research                                                                                                                                                                                           |
| Strategic Outcome-orientated<br>Goal 3<br>Goal Statement | Strengthen skills development planning and decision making capacity through responsive and credible institutional research for the duration of the strategic plan.<br>Support transformation of the sector through skills development.                                                                                                                                                                                                                              |
| Strategic Outcome-orientated<br>Goal 4<br>Goal Statement | For the duration of the strategic plan, the MQA will facilitate the delivery of core and non-core sector learning programmes aligned to the qualifications framework, to promote the NSDS III and Mining Charter transformation imperatives by focusing on the MMS workforce, particularly HDSAs; retrenches, youth, women and people with disabilities within mining communities and labour sending areas.<br>Ensure the delivery of quality programmes in the MMS |
|                                                          | Implement quality assurance of training delivery, capacity and infrastructure through the review, evaluation and monitoring of learning materials and training providers for the duration of the strategic plan.                                                                                                                                                                                                                                                    |



PART B:  
STRATEGIC OBJECTIVES



## 7a. Programme 1: Administration

### 7.1a Strategic objectives

|                              |                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 1</b> | Promote efficient and effective governance and administration.                                                                                                                                                                                              |
| <b>Objective Statement</b>   | By the end of the 2017-18 financial year, the MQA will improve the efficient and effective management of human resources, legal, marketing and communications, ICT, finance, supply chain management, M&E and stakeholder relations to achieve its mandate. |
| <b>Baseline</b>              | Qualified audit outcome in 2015-16                                                                                                                                                                                                                          |
| <b>Justification</b>         | Create an environment that is conducive to enable effective and efficient skills delivery.                                                                                                                                                                  |
| <b>Links</b>                 | PFMA, NDP 2030, outcome 5 of national government priorities that promote a skilled and capable workforce to support an inclusive                                                                                                                            |

### 7. 2a Resource considerations

Administration expenditure including the 0.5% transfer to the Quality Council for Trades and Occupations (QCTO) in the financial years 2013/14 – 2015/16 remained within the regulated 10,5% as per SETA Grant regulations. A number of interventions to strengthen the MQA's governance and operational environment including development of a turnaround strategy to address the qualified audit opinion, improvement of information systems among others will continue to be implemented. However, the expenditure for the Administration programme is projected to stay within the regulated level as improvements are deployed throughout the organisation. The medium term expenditure framework projections show an increase from about R144,7 million in 2017/18 to about R163, 3 million in 2019/20.

### 7.3a Risk management

| # | Risk Description  | Consequences                                                                                                                                                                                           | Mitigation Plans                                                                                                                                                                                                                                                                                        |
|---|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Reputational risk | Lack of trust by stakeholders may result in lost opportunities for Public Private Partnerships and funding requests.<br><br>Lack of buy in by stakeholders in MQA existing and proposed interventions. | Implement the approved turnaround strategy to address exceptions raised by the Auditor-General<br><br>Enhance declaration of interest mechanisms, verification and accountability thereof.<br><br>Conduct internal control reviews and monitor and evaluate reported incidents of fraud and corruption. |



| # | Risk Description                                                                                                        | Consequences                                                                                                                                                             | Mitigation Plans                                                                                                                                                                                                                                                                                   |
|---|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Impact of policy and regulatory environment                                                                             | Organisation mandate and scope may be extended beyond the capability of the institution                                                                                  | Regular attendance and engagements with the Executive Authority<br><br>Responsiveness to the Executive Authority directives.                                                                                                                                                                       |
| 3 | Inadequate information, analysis and reporting systems                                                                  | Incorrect decision making<br><br>Strategic decisions may not be made timeously due to poor reporting.                                                                    | Implement the MIS proposed interventions as approved by the Board<br><br>Establishment of an IT Committee as a subcommittee of the Board to direct development of appropriate MIS systems.<br><br>Centralise data storage for all interventions.<br><br>Implement and further develop the BI tool. |
| 4 | Threats to existing MQA revenue                                                                                         | The MQA may not have adequate financial resources to service its commitments and meet its targets that are sometimes inflated by directives from the Executive Authority | Monthly validation and monitoring of commitments registers and reconciliation with existing reserves, targets and future revenue forecasts and deciding on the most appropriate of the three controls.                                                                                             |
| 5 | Inadequate dynamic workforce that can identify and proactively adapt the MQA to the changing skills needs of the sector | Inability to identify emerging trends and develop appropriate strategies to respond to sector needs.                                                                     | Continuous evaluation of the organisational design.<br><br>Organisational skills audit.<br><br>Entrench education, training and performance management culture.                                                                                                                                    |
| 6 | Business disruptions                                                                                                    | Business disruptions may impede or disrupt the achievement of strategic plans                                                                                            | Testing and evaluation of the disaster recovery capabilities.<br><br>Develop entity wide business continuity plan beyond the IT disasters.                                                                                                                                                         |



| # | Risk Description                                           | Consequences                                                                                                | Mitigation Plans                                                                                                                            |
|---|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | Cyber-attacks and physical security over IT infrastructure | Unauthorised access to and theft of MQA funds.                                                              | Audit and improve IT infrastructure<br><br>Audit adequacy of firewall and implement fail safe measures linked to the Disaster Recovery site |
| 8 | Inadequate monitoring and evaluation systems               | Continuous support of inappropriate programmes.<br><br>Delayed strategic interventions based on evaluations | Conduct evaluations across projects                                                                                                         |

## 7b. Programme 2: Sector Skills Planning Research

### 7.2b Strategic objective

|                              |                                                                                                                                                                                 |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 2</b> | Improve skills development planning and decision-making through research.                                                                                                       |
| <b>Objective Statement</b>   | Lead and collaborate on research projects in skills development priorities within the MMS for the purpose of making informed decisions in line with the annual research agenda. |
| <b>Baseline</b>              | Nine research projects conducted                                                                                                                                                |
| <b>Justification</b>         | Creating a credible institutional mechanism for skills development planning and research in the sector.                                                                         |
| <b>Links</b>                 | NSDS III Goal 4.1                                                                                                                                                               |

### 7.2b Resource considerations

Skills Sector Planning expenditure includes the regulated mandatory grants that can be disbursed to qualifying levy paying entities with the balance used for sector skills planning and research activities. Mandatory grants decreased from about R230,3 million in 2013/14 to R194, 8 million in 2014/15 and further to R187,7 million in 2015/16; with an approved budget of R228, 7 million for 2016/17. In the medium term of 2017/18 and 2019/20, budgeted mandatory grant disbursements will increase from R228,7 million to about R240 million and R256,8 million respectively. Expenditure sector skills planning and research activities, saw a dramatic decrease from about R4,7 million in 2013/14 to R1 million in 2014/15 with a marginal increase to R1,1 million in 2015/16. Over medium term, the MQA plans to strengthen its sector skills planning research to ensure greater alignment to the NSDS III that has been extended to support the development of a skilled and competent mining and minerals sector workforce as well as improving access to economic opportunities for retrenched mining and minerals sector employees and individuals from labour sending areas and/or living in mining communities.

### 7.3b Risk management



| # | Risk Description                                                                              | Consequences                                                                                                                                                                                                                                                                                                                   | Mitigation Plans                                                                                                                                                                                                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Prioritisation of inappropriate skills for the sector                                         | <p>The scarce and critical skills identified in the research is not indicative of the actual scarce and critical skills of the employers.</p> <p>Funds wasted on training interventions that are not immediately needed by the sector</p>                                                                                      | <p>Enhance evaluation of alignment between Annual Training report and previously submitted Workplace Skills Plans.</p> <p>Identify and assess the extent of the contamination caused by training provider inputs into the scarce and critical skills report and exclude in subsequent scarce skills reports.</p> |
| 2 | Training interventions are reactive to the specific area's skills needs                       | <p>Community uprising against influx of migrant labourers to mining communities.</p> <p>The scarce and critical skills identified in the research is not indicative of the actual scarce and critical skills of the employers.</p> <p>Funds wasted on training interventions that are not immediately needed by the sector</p> | <p>Observe (Monitor) mining licences issued to new areas and channel resources (targeted allocations) to those areas prior to commencement of mining activities.</p> <p>Conduct research into future skills needs per geographical area and target grant allocations accordingly.</p>                            |
| 3 | Threats to existing MQA revenue                                                               | The MQA may not have adequate financial resources to service its commitments and meet its targets that are sometimes (inflated by) as a result directives from the Executive Authority                                                                                                                                         | Monthly validation and monitoring of commitments registers and reconciliation with existing reserves, targets and future revenue forecasts and deciding on the most appropriate of the three controls.                                                                                                           |
| 4 | IT infrastructure does not enable quality, complete data submission to inform skills planning | Unauthorised access to and theft of MQA funds and lose of information which may affect WSP/ATR Submissions among other things.                                                                                                                                                                                                 | <p>Audit and improve IT infrastructure</p> <p>Implement fail safe measures linked to the Disaster Recovery site</p>                                                                                                                                                                                              |



## 7c. Programme 3: Learning Programmes / Skills Development

|                              |                                                                                                                                                                                              |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 3</b> | Promote work-based skills development to support transformation in the mining and mineral sector                                                                                             |
| <b>Objective Statement</b>   | By the end of the financial year 2017-18 the MQA will have provided 21, 210 employed individuals access to learning programmes to develop a transformed, skilled and competent MMS workforce |
| <b>Baseline</b>              | 16,638 Workers                                                                                                                                                                               |
| <b>Justification</b>         | Increasing access to occupationally directed programmes.                                                                                                                                     |
| <b>Links</b>                 | NSDS III Goal 4.2                                                                                                                                                                            |

|                              |                                                                                                                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 4</b> | Facilitate access to occupationally directed learning programmes for the unemployed                                                                                       |
| <b>Objective Statement</b>   | By the end of the financial year 2017-18 the MQA will have provided 5, 380 unemployed individuals access to learning programmes to meet current and future skills demand. |
| <b>Baseline</b>              | 5, 946 Unemployed Learners.                                                                                                                                               |
| <b>Justification</b>         | Increasing access to occupationally directed programmes and encouraging better use of workplace based skills development.                                                 |
| <b>Links</b>                 | NSDS III Goal 4.2 and 4.5                                                                                                                                                 |

|                              |                                                                                                                                                                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 5</b> | Support mine community training initiatives to access economic opportunities.                                                                                                                                                                           |
| <b>Objective Statement</b>   | By the end of the financial year 2017-18 the MQA will have facilitated access to training and economic opportunities for 10,000 retrenches, unemployed youth, women and people with disabilities living in mining communities and labour sending areas. |
| <b>Baseline</b>              | 1,562 mine community learners                                                                                                                                                                                                                           |
| <b>Justification</b>         | To provide alternative skills to retrenches and unemployed individuals in mine communities and labour sending areas post mining activities in the area.                                                                                                 |
| <b>Links</b>                 | NSDS III Goal 4.6                                                                                                                                                                                                                                       |



### 7.2c Resource considerations

Learning Programmes, in line with the grant regulation regulations, has the largest allocation with a significant increase in expenditure recorded from about R498 million in 2013/14 to R722,8 million in 2014/15 with a further increase reported for 2015/16. In line with its mandate and informed by the needs of the mining and minerals sector, the MQA will prioritise three key areas as reflected in its Strategic Objectives. These areas include supporting transformation and developing the skills of the mining and minerals workforce by funding workplace-based skills development; increasing access to occupationally directed programmes for the unemployed; and encouraging and supporting mine community training initiatives. Core and non-core mining and minerals sector interventions to be supported include artisan development programmes, bursaries, adult literacy, learnerships, workplace integrated learning, lecturer development programmes and recognition of prior learning. Over the medium term, expenditure is budgeted to steadily increase from R1,2 billion to 2017/18 to R1,27 billion in 2018/19 to R1,3 billion in 2019/20.

### 7.3c Risk management

| # | Risk Description                | Consequences                                                                                                                                                             | Mitigation Plans                                                                                                                                                                                       |
|---|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Threats to existing MQA revenue | The MQA may not have adequate financial resources to service its commitments and meet its targets that are sometimes inflated by directives from the Executive Authority | Monthly validation and monitoring of commitments registers and reconciliation with existing reserves, targets and future revenue forecasts and deciding on the most appropriate of the three controls. |
| 2 | Business disruptions            | Business disruptions may impede or disrupt the achievement of strategic plans                                                                                            | Testing and evaluation of the disaster recovery capabilities.<br><br>Develop entity wide business continuity plan beyond the IT disasters.                                                             |

| # | Risk Description                                                                | Consequences                                                                                                                     | Mitigation Plans                                                                                                                                                                                                                                                               |
|---|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Inadequate training spaces for workplace integrated learning                    | Annual Performance Plan and Strategic plan targets may not be met                                                                | <p>Audit available training spaces in the industry through analysis of WSP and ATR information.</p> <p>Evaluate opportunities for placements outside the country.</p> <p>Evaluate disciplines and related sectors for possible placement opportunities outside the sector.</p> |
| 4 | Inadequate interventions for targeted development of senior black professionals | Industry continuously reports shortage of skills as an impediment to transformation despite MQA skills development interventions | <p>Review delivery model, content, relevance and adequacy of the existing HDSA programme.</p> <p>Implement recommendations of the GCC study</p>                                                                                                                                |



## 7d. Programme 4: Education and Training Quality Assurance

|                              |                                                                                                                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic Objective 6</b> | Ensure the delivery of quality learning programmes in the Mining and Minerals Sector.                                        |
| <b>Objective Statement</b>   | Support the sector to develop sufficient training and development capacity                                                   |
| <b>Baseline</b>              | 157 number of accredited/programme approved training providers.<br>142 number of learning programmes developed and reviewed. |
| <b>Justification</b>         | Continuously improve the delivery of quality learning programmes.                                                            |
| <b>Links</b>                 | ISO 9001-2008                                                                                                                |

### 7.2d Resource considerations

The focus of the programme is on ensuring quality training and as such, funds are utilised for supporting qualifications review and development as well as for monitoring accredited training providers. Expenditure is expected to steadily increase over the medium term from R1,6 million in 2017/18 to R1,8 million in 2018/19 to about R1,8 million in 2019/20.

### 7.3d Risk management

| # | Risk Description                                    | Consequences                                                                                            | Mitigation Plans                                                                                                      |
|---|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 1 | MQA interventions may produce incompetent workforce | Graduates may complete the programmes without the necessary competencies for absorption in the industry | Contract industry experts to strengthen capacity to conduct quality assurance and workplace assessments and approvals |



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PART C:

LINKS TO OTHER PLANS



## higher education & training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

### **SERVICE LEVEL AGREEMENT**

entered into by and between

#### **DEPARTMENT OF HIGHER EDUCATION AND TRAINING**

(hereinafter referred to as the "DHET" represented by GF Qonde, duly authorized thereto by virtue of his capacity as the Director-General),

and

#### **MINING QUALIFICATIONS AUTHORITY (MQA)**

(hereinafter referred to as "SETA" represented by Mthokozisi Zondi duly authorised thereto in his/her capacity as Acting Chairperson of the Accounting Authority/Administrator)

## **1. PURPOSE OF THE SERVICE LEVEL AGREEMENT**

This service level agreement is entered into between the above mentioned parties to agree on the minimum service levels required by the SETA in performing its statutory functions, meeting the National Skills Development Strategy targets and implementing its strategic plan and annual performance plan.

## **2. DURATION OF THE SERVICE LEVEL AGREEMENT**

The service level agreement is entered into for the period of 1 April 2017 to 31 March 2018

## **3. OBLIGATIONS OF THE SETA**

### **3.1 The SETA undertakes to :**

- 3.1.1 perform its functions as required by the Skills Development Act;
- 3.1.2 meet the targets in the National Skills Development Strategy;
- 3.1.3 implement the approved Strategic Plan and Annual Performance Plan;
- 3.1.4 submit all documentation and reports as may be required by the Department on the times specified; and
- 3.1.5 adhere to the requirements of the Public Finance Management Act and Treasury Regulations.
- 3.1.6 address all findings raised by the Auditor-General in the previous financial year.
- 3.1.7 Submit comprehensive plan of action to the department.

### **3.2 Perform and provide the information and/or reports on the activities listed below:**

- 3.2.1 assessment of the skills required for each sector and to identify scarce skills;
- 3.2.2 how the levels of education will be improved in the sector;
- 3.2.3 partnerships between SETAs and public Technical and Vocational Education and Training (TVET) colleges, Universities, training providers and industry;

- 3.2.4 the number of bursaries awarded/to be awarded to deserving South African citizens in critical skills at 25 Universities and 50 TVET colleges;
- 3.2.5 scarce and critical skills needs in the sector, how it will be addressed and reflected in the number of learners that will be trained and placed, as well as the companies involved;
- 3.2.6 number of agreements signed with public TVET colleges, Universities and other training providers as well as the amount approved per agreement which should also reflect the number of learners that will be trained, types of training programmes and programmes that are in place;
- 3.2.7 targets as reflected in the Annual Performance Plan must be credible and linked to a "Baseline";
- 3.2.8 placement of lecturers in industry as part of the Service Level Agreement;
- 3.2.9 rural development programmes and how it will be implemented;
- 3.2.10 support the revitalization of rural and township economy;
- 3.2.11 progress in the implementation of Recognition of Prior Learning;
- 3.2.12 establish working relationships with TVET colleges, Universities and industry for the purpose of placement of students and graduates;
- 3.2.13 ensure the placement of TVET students, University of Technology students and University graduates requiring Work Integrated Learning (WIL) in the relevant sector and provide report on quarterly basis;
- 3.2.14 maintain and operationalize SETA offices in (name of colleges where offices are/is):

| TVET<br>NAME                                      | COLLEGE | REGION/PR<br>OVINCE | DISTRICT                  | MUNICIPALITY               |
|---------------------------------------------------|---------|---------------------|---------------------------|----------------------------|
| King<br>Dalindyebo                                | Sabatha | Eastern<br>Cape     | OR Tambo                  | King Sabatha<br>Dalindyebo |
| Goldfields<br>College                             | TVET    | Free-State          | Lejweleput<br>swa         | Matjhabeng                 |
| Sekhukhune<br>College                             | TVET    | Limpopo             | Greater<br>Sekhukhun<br>e | Greater<br>Tubatse         |
| Northern<br>Urban TVET College<br>(Khathu Campus) | Cape    | Northern<br>Cape    | John Taolo<br>Gaetswewe   | Gamagara                   |
| Nkangala<br>College                               | TVET    | Mpumalanga          | Nkangala                  | Emalahleni                 |
| Orbit TVET College<br>(Mankwe Campus)             |         | North-West          | Bojanala                  | Ngaka Modiri<br>Molema     |

- 3.2.15 support offices opened by other SETAs (Lead SETAs) in TVET colleges;
- 3.2.16 conclude work from previous performance years commitments and submit reports as required by the Department;
- 3.2.17 sector funded training identified and reported on quarterly basis.
- 3.2.18 annual targets for registered and completed artisan learners by listed trade as agreed with the Chief Directorate: INDLELA to address HRDC ATD-TTT Bottleneck 1;
- 3.2.19 monthly reports in a format determined by the Chief Directorate: INDLELA of the actual number of registered and completed artisan learners to address HRDC ATD-TTT Bottleneck 1;

- 3.2.20 implementation of the Policy on Generic National Artisan Learner Grant Funding and Administration System to address HRDC ATD-TTT Bottleneck 2;
- 3.2.21 the number of persons supported to become qualified artisans within the national artisan learner Recognition of Prior Learning system determined by the Chief Directorate: INDLELA to address HRDC ATD-TTT Bottleneck 3;
- 3.2.22 provide financial support to world skills South Africa through the DHET approved structure;
- 3.2.23 submit an implementation plan of the commitments made in this SLA within the first quarter of the financial year;
- 3.2.24 In relations to the 13 priority trade needed for the construction and maintenance of the government Strategic Integrated Projects (SIPs) the SETA should:
- 3.2.24.1 Increase by at least 5% the number of grants issued for these trades in 2015/16. If no grants were issued for any or all these trades last year, the SETA is not obliged to offer such grants in 2016/17, but is encouraged to do so if at all possible;
  - 3.2.24.2 coordinate all relevant SETAs with regards to the development work being undertaken by DHET for the implementation of the QCTO qualifications in targeted TVET colleges (Centre's of Specialization);
  - 3.2.24.3 support the work of the coordinating SETAs for each of the following trades: Bricklayer, Electrician, Millwright, Boilermaker, Plumber, Mechanic including automotive mechanic, Diesel mechanic, Carpenter and Joiner, Welder, Rigger, Fitter and turner, Mechanical fitter and Pipe fitter;
  - 3.2.24.4 report on these SIPs commitments as required.
- 3.2.25 meet minimum targets as reflected in the table below:

| NSDS III GOAL                                                       | PERFORMANCE INDICATORS                 | BASELINE | SETA FUNDED TARGETS | SECTOR FUNDED TARGETS |
|---------------------------------------------------------------------|----------------------------------------|----------|---------------------|-----------------------|
| Establishing a credible institutional mechanism for skills planning | Large Firms                            | 238      | 240                 | N/A                   |
|                                                                     | Medium Firms                           | 150      | 170                 | N/A                   |
|                                                                     | Small Levy Paying Firms                | 221      | 250                 | N/A                   |
| Increase access to occupationally directed programmes               | Unemployed Entered Learnerships        | 671      | 2400                | 500                   |
|                                                                     | Unemployed Entered Bursaries           | 1310     | 1000                | N/A                   |
|                                                                     | Unemployed Entered Internships         | 454      | 500                 | N/A                   |
|                                                                     | Unemployed Entered Skills Programmes   | N/A      | N/A                 | 6000                  |
|                                                                     | Unemployed Completed Learnerships      | 186      | 500                 | 500                   |
|                                                                     | Unemployed Completed Bursaries         | 228      | 600                 | N/A                   |
|                                                                     | Unemployed Completed Internships       | 275      | 275                 | N/A                   |
|                                                                     | Unemployed Completed Skills Programmes | N/A      | N/A                 | 6000                  |
|                                                                     | Artisans Entered                       | 1235     | 1500                | 500                   |
|                                                                     | Artisans Completed                     | 1267     | 1800                | 500                   |
|                                                                     |                                        |          |                     |                       |
| Encouraging better use of workplace-based-skills programmes         | Workers Entered Learnerships           | 1241     | 1500                | 400                   |
|                                                                     | Workers Entered Bursaries              | N/A      | N/A                 | N/A                   |
|                                                                     | Workers Entered Skills Programmes      | 4694     | 6200                | 6800                  |
|                                                                     | Workers Completed Learnerships         | 331      | 800                 | N/A                   |
|                                                                     | Workers Completed Bursaries            | N/A      | N/A                 | N/A                   |
|                                                                     | Workers Completed Skills Programmes    | 4519     | 6200                | 6800                  |
|                                                                     | Candidacy Programme Entered            | N/A      | 100                 | N/A                   |
|                                                                     | Candidacy Programme Completed          | N/A      | 100                 | N/A                   |
|                                                                     | Recognition of prior Learning (RPL)    | 23       | 200                 | N/A                   |
| Promoting the growth of a                                           | TVET Student Placement Entered         | 529      | 250                 | N/A                   |
|                                                                     | TVET Student Placement                 |          | 200                 |                       |

|                                                                                                                             |                                                                                             |                |           |     |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------|-----------|-----|
| public TVET college system that is responsive to sector ,local ,regional and national skills needs and priorities           | Completed                                                                                   | 60             |           | N/A |
|                                                                                                                             | Universities Student Placement Entered                                                      | 723            | 600       | N/A |
|                                                                                                                             | Universities Student Placement Completed                                                    | 338            | 340       | N/A |
|                                                                                                                             | SETA/TVET College Partnerships                                                              | 15             | 30        | N/A |
|                                                                                                                             | SETA/Universities Partnerships                                                              | 3              | 3         | N/A |
|                                                                                                                             | SETA/Employer Partnerships                                                                  | N/A            | N/A       | N/A |
|                                                                                                                             | Lecturer Development Programmes Entered                                                     | 27             | 30        | N/A |
|                                                                                                                             | Lecturer Development Programmes Completed                                                   | N/A            | N/A       | N/A |
|                                                                                                                             | Number of SETA Offices opened in TVET Colleges (List the names of the TVET Colleges opened) | 6              | 6         | N/A |
| Addressing the low level of youth and adult language and numeracy skills to enable additional training                      | AET Programmes Entered                                                                      | 0              | 4700      | N/A |
|                                                                                                                             | AET Programmes Completed                                                                    | 2364           | 2500      | N/A |
| Encouraging and supporting the co-operatives, small enterprises, worker initiatives, NGO and community training Initiatives | Cooperatives Supported                                                                      | N/A            | N/A       | N/A |
|                                                                                                                             | Small Business Supported                                                                    | N/A            | 10        | N/A |
|                                                                                                                             | NGOs                                                                                        | N/A            | N/A       | N/A |
|                                                                                                                             | NLPE                                                                                        | N/A            | N/A       | N/A |
|                                                                                                                             | CBO                                                                                         | N/A            | N/A       | N/A |
|                                                                                                                             | Trade Unions                                                                                | N/A            | N/A       | N/A |
| Building Career Guidance and Vocational                                                                                     | Career Guidance Events                                                                      | 13971 learners | 60 events | N/A |

|                          |                                                 |                          |                    |            |
|--------------------------|-------------------------------------------------|--------------------------|--------------------|------------|
| guidance                 |                                                 |                          |                    |            |
|                          |                                                 |                          |                    |            |
| <b>NSDS III Projects</b> | Number of Provincial and Rural Projects Planned | <b>785 beneficiaries</b> | <b>20 Projects</b> | <b>N/A</b> |
|                          |                                                 |                          |                    |            |
|                          |                                                 |                          |                    |            |
| <b>Governance</b>        | Number of Governance Charter Reports submitted  | <b>N/A</b>               | <b>4</b>           | <b>N/A</b> |

#### **4. OBLIGATIONS OF DEPARTMENT OF HIGHER EDUCATION AND TRAINING**

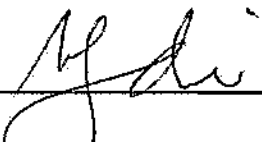
4.1 The Department undertakes to:

- 4.1.1 consult the SETA on policy and strategic matters that may affect the functioning of the SETA;
- 4.1.2 provide the SETA with guidance on sector skills plans, strategic plans and any matter that may be requested by the SETA in relation to its functions; and
- 4.1.3 assist the SETA where applicable in performing its functions and responsibilities.
- 4.1.4 validate and verify the accuracy and usefulness of reports submitted by SETAs and provide feedback quarterly.

**5. GENERAL**

In year amendments to the approved Service Level Agreement must not be encouraged.

SIGNED AT PARKTOWN ON THIS 21 DAY OF FEBRUARY 2017

  
\_\_\_\_\_  
ACCOUNTING AUTHORITY/ADMINISTRATOR

(Represented by Mthokozisi Zondi who warrants that he/she is duly authorised to this agreement)

SIGNED AT \_\_\_\_\_ ON THIS \_\_\_\_ DAY OF \_\_\_\_\_ 2017

\_\_\_\_\_  
DIRECTOR-GENERAL

(Represented by GF Qonde, duly authorized thereto)

## **Acronyms and Abbreviations**

**APP** - Annual Performance Plans

**DG** - Director General of Higher Education and Training

**DHET** - Department of Higher Education and Training

**HRDC ATDTT** – Human Resource Development Council- Artisan Development Technical Task Team

**Minister** - Minister of the Department of Higher Education and Training

**M & R** - Sub-directorate: Monitoring and Reporting of the SPM

**NC (V)** - National certificate (Vocational)

**NSDS** - National Skills Development Strategy

**RPL** - Recognition of Prior Learning

**SETA** - Sector Education and Training Authority

**SLA** - Service Level Agreement

**SPM** - SETA Performance Management of the DHET

**SP** - Strategic Plans

**SSP** - Sector Skills Plans

**TVET** - Technical and Vocational Education and Training (formerly FET)

**WIL** - Work Integrated Learning

## APPENDIX 1

### MQA RESPONSES TO THE DHET PROPOSED SLA TARGETS

| Performance indicators                          | DHET proposed target | MQA proposed target | Reasons for MQA's proposed targets                                                                                                                                                                                                                            |
|-------------------------------------------------|----------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3.1a.</b> Workers entering learnerships      | <b>3 400</b>         | <b>1500</b>         | Target of 3000 for 2015/16 was not achieved. It will be a challenge to achieve the proposed 3400 target due to: <ul style="list-style-type: none"> <li>• Capacity of accredited training providers.</li> <li>• The sector is currently downsizing.</li> </ul> |
| Workers entering bursaries                      | <b>1000</b>          | <b>0</b>            | MQA funding policy does not provide funding for workers. However our SPP indicate that is currently being funded by the sector.                                                                                                                               |
| <b>3.3a.</b> Workers entering skills programmes | <b>13000</b>         | <b>13000</b>        | In agreement, the target caters for both SETA and sector funded                                                                                                                                                                                               |
| <b>3.9a.</b> Unemployed entering learnerships   | <b>2400</b>          | <b>2400</b>         | In agreement.                                                                                                                                                                                                                                                 |
| <b>3.10a.</b> Unemployed entering bursaries     | <b>1000</b>          | <b>1000</b>         | In agreement.                                                                                                                                                                                                                                                 |
| <b>3.13a.</b> Unemployed entering internships   | <b>500</b>           | <b>500</b>          | In agreement.                                                                                                                                                                                                                                                 |
| Unemployed entering skills programmes           | <b>1500</b>          | <b>1500</b>         | In agreement.                                                                                                                                                                                                                                                 |
| <b>3.7a.</b> Artisans entered                   | <b>2832</b>          | <b>1500</b>         | <ul style="list-style-type: none"> <li>• Target of <b>2000</b> met in 2015/16 was not met, the MQA only achieved <b>1267</b> it will be difficult to achieve the proposed target of <b>2832</b> by the DHET.</li> </ul>                                       |

|                                            |            |             |                                                                                                                                                                  |
|--------------------------------------------|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            |            |             | <ul style="list-style-type: none"> <li>The sector is currently downsizing.</li> </ul>                                                                            |
| <b>3.7b.</b> Artisan completed             | <b>0</b>   | <b>1800</b> | In agreement as per the SLA                                                                                                                                      |
| <b>3.12.</b> TVET student placement        | <b>600</b> | <b>250</b>  | The sector is currently downsizing.                                                                                                                              |
| <b>3.11a.</b> University student placement | <b>550</b> | <b>550</b>  | In agreement                                                                                                                                                     |
| <b>3.4.</b> Candidacy                      | <b>150</b> | <b>100</b>  | This programme is on pilot stage, it will be difficult to achieve the set target by the DHET, intake will improve in the coming year.                            |
| <b>2.5</b> SETA /University partnerships   | <b>310</b> | <b>3</b>    | This target will be implemented by the SETA entry into 3 Partnerships with Universities. However the beneficiaries from the partnership will be more than 310.   |
| SETA /TVET partnerships                    | <b>310</b> | <b>30</b>   | This target will be implemented by the SETA entry into 30 Partnerships with TVET Colleges. However the beneficiaries from the partnership will be more than 310. |
| SETA/Employer partnership                  | <b>10</b>  | <b>0</b>    | Not In agreement                                                                                                                                                 |



## 9. Conditional grants

Not applicable. The MQA is a Schedule 3(a) public entity.

## 10. Public entities

Not applicable. The MQA is a Schedule 3(a) public entity.

## 11. Public-private partnerships

| Project Name                                                                                      | Programme               | Municipality            | Project Description                                                                                                                                                                                     | Outputs                                                                                                                                                                        | Estimated project cost | Expenditure to date | Project duration |                                                                                                   |
|---------------------------------------------------------------------------------------------------|-------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------------------|---------------------------------------------------------------------------------------------------|
|                                                                                                   |                         |                         |                                                                                                                                                                                                         |                                                                                                                                                                                |                        |                     | Start            | Finish                                                                                            |
| MQA – Orbit College Lecturer Support                                                              | TVET Lectures Support   | Bojanala                | Placement of 6 Lectures for                                                                                                                                                                             |                                                                                                                                                                                | R216 000               | R0.00               | January 2016     | March 2018                                                                                        |
| NCV Learner Placement                                                                             | NCV Learner Placement   | Nkangala                | Placement of 8 TVET Colleges' NCV Graduates                                                                                                                                                             | Award bursaries to HET Students in Mining & Minerals disciplines                                                                                                               | R1 200 000             | R600 000            | April 2015       | March 2017                                                                                        |
| Collaboration with HEIs regarding skills development research in the MMS (University of Pretoria) | University Partnerships | Tshwane Metropolitan    | To provide financial support and assistance to students who are undertaking research in the MMS and who wish to present their research at an accredited conference or publish in an accredited journal. | A copy of material which has been presented by students at a conference or published in a journal and proof of such presentation and publication<br>A written close out report | R100 000               | R100 000            | 3 May 2016       | Collaboration with HEIs regarding skills development research in the MMS (University of Pretoria) |
| Collaboration with HEIs regarding skills development research in the MMS (University of Zululand) | University Partnerships | Umhlathuze Municipality | To provide financial support and assistance to students who are undertaking research in the MMS and who wish to present their research at an accredited conference or publish in an accredited journal. | A copy of material which has been presented by students at a conference or published in a journal and proof of such presentation and publication<br>A written close out report | R100 000               | R0.00               | 31 March 2016    | 31 March 2017                                                                                     |

MINING QUALIFICATIONS AUTHORITY

ANNUAL PERFORMANCE PLAN

FOR

2017 – 2018

NOVEMBER 2016



# FOREWORD

## “Digging with Skills and Knowledge”

The Mining Qualification Authority strategic planning process is guided by the Medium Term Strategic Framework(MTSF) which reflects political outcomes priorities, the Framework for the National Skills Development Strategy, and the National Small-Scale Mining Development Framework. This is in line with changes in Government’s approach to planning, monitoring and evaluation aimed at translating the government’s election mandate into reality.

The Annual Performance Plan (APP) is guided by the Strategic Plan and contains the performance targets for the budget years. The Annual Performance Plan sets out MQA’s priorities and indicates the steps taken by management to ensure that the targets are achieved.

The MQA is fully committed to supporting and ensuring the implementation of the APP.



## OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan:

- Was developed by the management of the Mining Qualifications Authority under the guidance of the Honourable Minister of Higher Education, Dr B Nzimande;
- Was prepared in line with current Strategic Plan of the Mining Qualifications Authority; and
- Accurately reflects the performance targets which the Mining Qualifications Authority will endeavor to achieve given the resources made available in the budget for 2017 – 2018



**Tebogo Mmotla**  
Acting Chief Executive Officer

**Amon Teteme**  
Labour Convenor



**Vusi Mabena**  
Employer Convenor



**Mthokozisi Zondi**  
Chairperson of the Board





# CONTENTS

|                                                                            |            |
|----------------------------------------------------------------------------|------------|
| <b>Part A – Strategic overview</b>                                         | <b>40</b>  |
| 1 Updated situational analysis.....                                        | 41         |
| 1.1 Performance delivery environment.....                                  | 45         |
| 1.2 Organizational environment .....                                       | 45         |
| 2 Revisions to legislative and other mandates.....                         | 46         |
| 3 Overview of 2017/18 budget and MTEF estimates.....                       | 46         |
| 3.1 Expenditure estimates.....                                             | 46         |
| 3.2 Relating expenditure trends to strategic outcome orientated goals..... | 47         |
| <b>Part B – Programme and subprogramme plans</b>                           | <b>48</b>  |
| 4 Programmes .....                                                         | 49         |
| 4.1 Strategic Objective annual targets for 2017/18.....                    | 49         |
| 4.2 Programme performance indicators and annual targets for 2017/18.....   | 49         |
| 4.3 Quarterly targets for 2017/18.....                                     | 51         |
| 4.4 Reconciling performance targets with the Budget and MTEF.....          | 77         |
| <b>Part C: Links to other plans</b>                                        | <b>93</b>  |
| 5 Links to long-term infrastructure and other capital plans.....           | 94         |
| 6 Conditional grants.....                                                  | 94         |
| 7 Public Entities.....                                                     | 94         |
| 8 Public-private partnerships.....                                         | 95         |
| <b>Annexure</b>                                                            |            |
| <b>Annexure D MQA Sector Skills Plan update 2017 – 2018</b>                | <b>106</b> |
| <b>Annexure E - Technical Indicator Descriptions</b>                       | <b>171</b> |



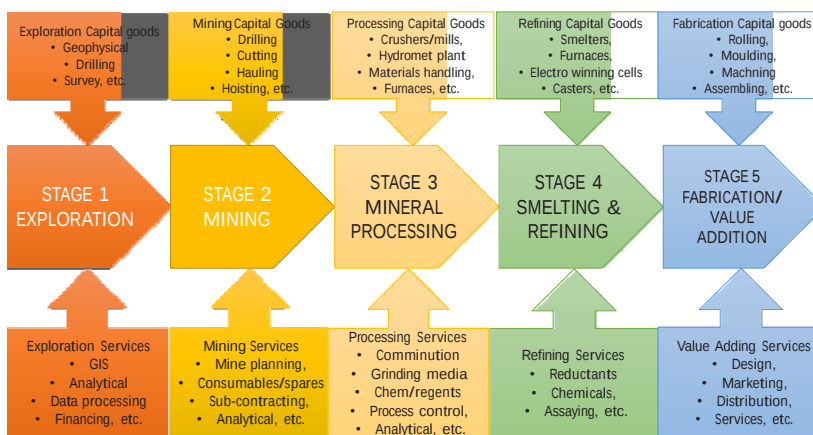
PART A:  
STRATEGIC OVERVIEW

## 1. UPDATED SITUATIONAL ANALYSIS

South Africa remains one of the largest net exporters of minerals and metals. In the mining industry South Africa is an important global hub with deep backward vertical integration and a fully-fledged supply industry serving both South African and foreign companies. South Africa accounts for 96% of known global reserves of the platinum group metals (PGMs), 74% of chrome, 26% manganese and 11% of gold reserves

The below explains the MMS' value chain showing primary activities from exploration to minerals value addition and the support activities in each stage of the value chain.

FIGURE 1: MINING AND MINERALS SECTOR VALUE CHAINE



Source: Underhill Corporate Solutions illustration based on Ecopartners

The majority of the companies in Stage two are involved in primary production while Stages three to five depicts secondary production, with increasing degrees of processing, beneficiation and value addition.

The MMS' contribution to South Africa's GDP has decreased by 0.9% from 2009 to 2015. Given the sector's importance to the economy, a concerning reality is that the weakening of commodity prices is not expected to recover soon. The main contributors to the decline in mining output include the following:

- Lower global commodity prices
- Slowing demand in China
- Fewer exports for South Africa due to low global growth

The Mining Phakisa, an initiative of the Presidency, aims to expand the lifespan of the mines by locally developing the machinery required to mine narrow, hard rock reefs, which is where the majority of platinum and gold resources lie in South Africa. These resources are currently unviable to mine due to safety, health and economic reasons. Health and Safety matters can be addressed through mechanisation; however upskilling training drives will be required for all skills levels of workers, including managers and supervisors, to ensure a smooth transition to mechanisation. A focus on AET programmes up to level 4 as a way of improving literacy and numeracy levels will be important as a way of preparing existing and potential employees to operate new machinery and coordinate new processes.

The government is currently drafting the Mineral Beneficiation Action Plan (MBAP), which seeks to advance 'local value-addition across five mineral value-chains'. The implementation of the Minerals Beneficiation Strategy and MBAP is expected to create and retain much needed jobs in the MMS. If minerals are processed locally, is potential to boost the manufacturing industry and create much needed jobs along the MMS value chain.

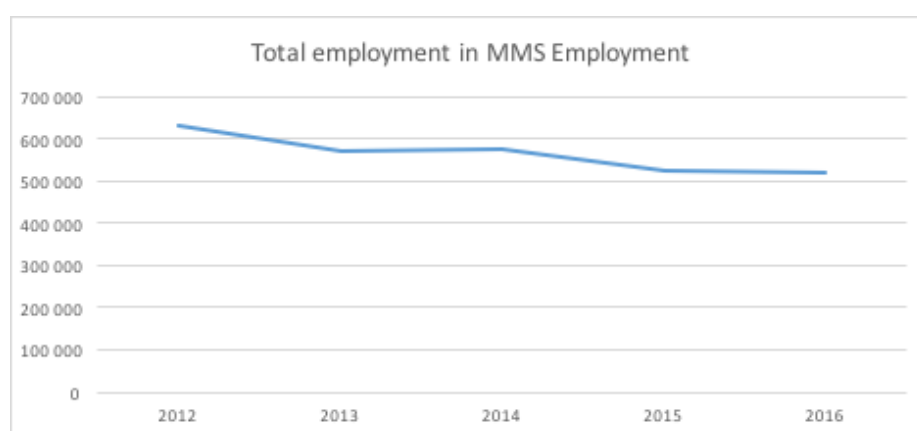


There are 3 out of 18 strategic infrastructure projects (SIPs) which have a direct bearing on the MMS. SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst. SIP 1 is the largest of the 18 SIPs by project value and is estimated at around R803 billion. The focus of SIP 1 is to unlock mineral resources which will generate thousands of direct jobs across the areas unlocked. SIP 4 is linked to mineral beneficiation. It involves the facilitation of development of the mining sector by opening up beneficiation opportunities in the North West province. SIP 5: The Saldanha-Northern Cape Development Corridor entails the expansion of iron ore mining production.

BELOW IS A FIVE YEAR TREND ANALYSIS OF THE MMS LABOUR PROFILE FOR THE PERIOD 2012-2016.

**Figure 2: Employee Breakdown within MMS over a 5 year period:**

Total employment in the MMS has been declining over the years. As of 31st May 2016, the MMS employs an estimated 520 003 people, which is a 1% decrease from 2015, and a 17.3% drop since 2012.

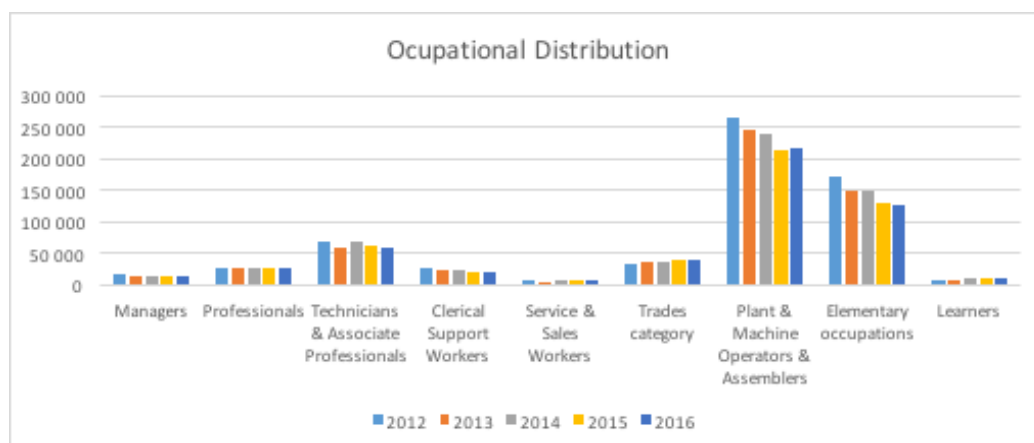


Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

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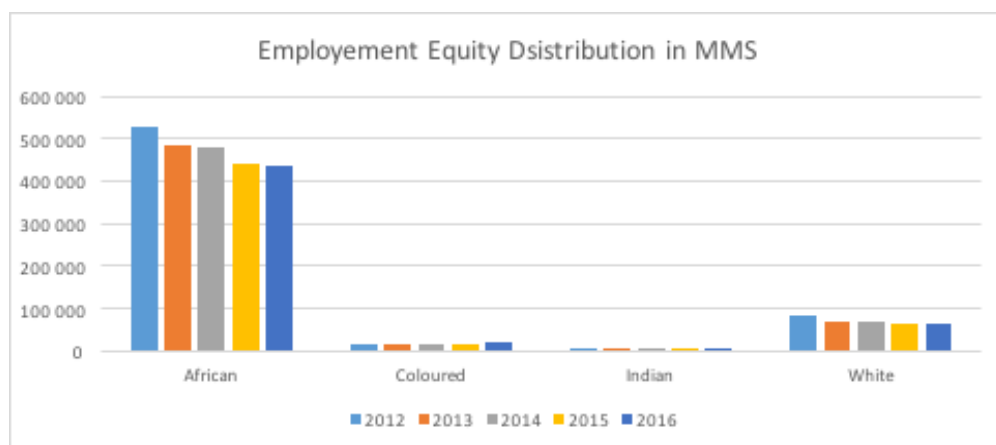
Figure 3: Occupational Distribution of Labour over a 5 year period



Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

A review of employment by occupational categories shows that the biggest decreases in employment numbers are found in the elementary occupations, with a 26% decrease since 2012, the Plant and Machine Operators & Assemblers category, with an 18.4% decrease, as well as the Technicians & Associate Professionals category (the one in which Miners fall), with a 17.6% decrease since 2012.

Figure 4: Employment Equity Distribution of Labour over a 5 year period

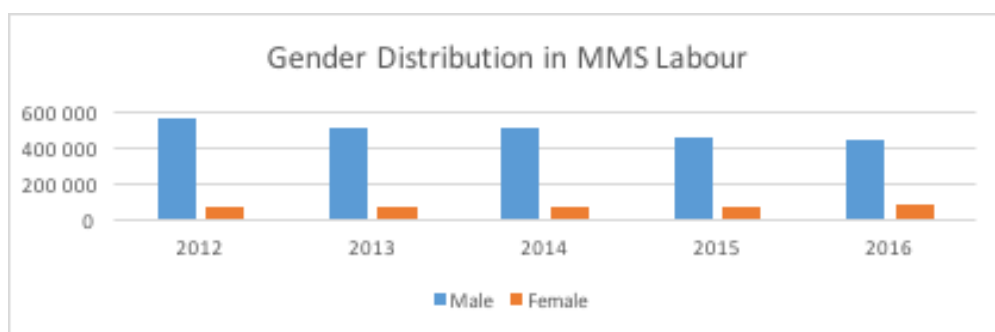


Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

The overall composition of employees by race shows that Africans have been, and continue to be, the dominant group in the MMS. In 2016 the total employment number of Africans decreased by 1.5% from 2015, with the biggest decline being in the Service and Sales Workers category, with a 7.46% drop. There was a 6% decrease in White employment, with the biggest decline being in the Managers category, with a 10.56% drop. Coloured employment experienced a large jump in numbers from 2015 to 2016 compared to the previous 4 years, with the largest increase being in the Artisan category, at 62.7%. The Indian group is consistently the least represented in the MMS constituting less than 1%, although the numbers increased by 38% from 2015 to 2016.



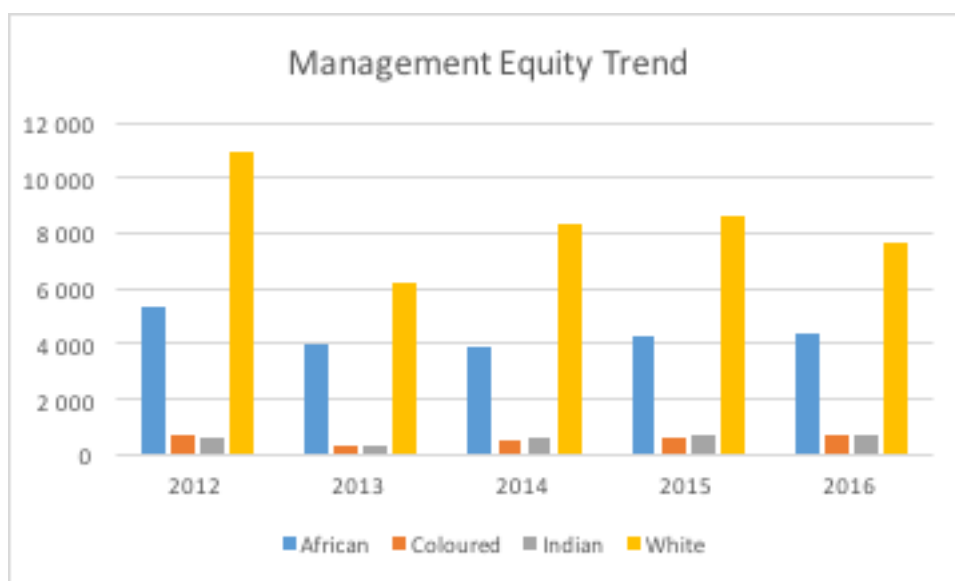
Figure 5: Gender Distribution of Labour over a 5 year period



Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

Although the sector is historically male-dominated, the proportion of females has been increasing gradually, from 11% in 2012, to 14.5% in 2016.

Figure 6: Management Equity in Labour Distribution over a 5 year period



Source: Calculated from weighted MQA WSP/ATR submissions (2012-2016)

In terms of management by equity, there has been an overall increase in management of Africans, Coloureds and Indians. In 2012, these 3 race groups together constituted 37.7% of management, 42.4% in 2013, a decrease to 37.5% in 2014, to 39% in 2015, and then showing the highest proportion across the 5 years in 2016, with 42.5% of management. Regarding gender, African, Coloured and Indian females together constitute 9.1% of management

#### IMPLICATIONS OF THE SITUATIONAL ANALYSIS FINDINGS FOR SKILLS DEVELOPMENT

The main implications for skills development in the sector are summarised below:

- There has been a decrease in employment figures over the last few years. This shows that the sector has been retrenching. The MQA and other role players need to pay special attention to the reskilling of retrenched workers so that they can be absorbed into other sectors of the formal labour market.
- The MQA is to monitor the developments of Mining Phakisa and prepare existing and potential employees accordingly.



in terms of skills requirement; as well as take advantage of the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to lead to increased economic activity and the creation of new jobs in South Africa.

- An analysis of the skills requirements and supply mechanisms for the above is to be thoroughly researched to ascertain the nature and level of skills to develop in supporting these initiatives. Relevant skills need to be prioritised.
- There are still racial and gender disparities in the demographic composition of the industry signalling the need for role-players to continue to address workforce imbalances. The MQA might need to consider a reallocation of the discretionary grant to support industry to increase the uptake and throughput of historically disadvantaged individuals, particularly women, in the MMS training and skills development pipeline.

## 1.1 PERFORMANCE DELIVERY ENVIRONMENT

In addition, the following trends have been observed in the sector:

- Increasing number of jobs being lost for operational reasons;
- Trend will continue into the future unless existing problems in the Industry are arrested;
- Cyclical nature of commodity prices is likely to continue; and
- Technological changes in the value chain increasingly indicate a need for a different skilled workforce and less reliance on unskilled labour.

In view of the above, the MQA will have to change its skills development focus to up-skilling and re-skilling the current workforce to enhance the employability, portability and mobility of employees.

The MQA has been re-established to conduct its activities as a Sector Education and Training Authority (SETA) from 1 April 2016 to 31 March 2018.

## 1.2 ORGANIZATIONAL ENVIRONMENT

The MQA recently embarked in internal reorganization which came in effect from the 1st May 2015 post approval by the MQA Board. The purpose was to streamline processes and enhance service delivery through controlled and monitored activities. This resulted in merging of some units within the MQA and strengthening key resources such as the Monitoring and Evaluation function. Given the recent challenge of the audit outcome, the executive management will be implementing a turnaround strategy which will address the people, systems, processes of the MQA to ensure that there is drastic improvements in the effectiveness and delivery of the organisational mandate.

The Regional Offices were also capacitated and more staff deployed in the past financial year to ensure close contact and accessible service to the community. The MQA currently employs 111 permanent staff members supported by 12 Interns to assist the organization. Furthermore, the modus operandi between the Operations and Stakeholder Relations Department was reviewed to fast track and strengthen the delivery capabilities. Additionally, the organisational training and development plan will also be enhanced to address the immediate gaps across all levels so that the organization operates optimally.

### PERMANENT STAFF AND INTERNS

|              | M         | F         | A          | C        | W        | I        | Vacant   | Total      |
|--------------|-----------|-----------|------------|----------|----------|----------|----------|------------|
| Permanent    | 39        | 67        | 94         | 7        | 1        | 4        | 5        | 111        |
| Interns      | 4         | 5         | 8          | 1        | -        | -        | 3        | 12         |
| <b>TOTAL</b> | <b>43</b> | <b>72</b> | <b>102</b> | <b>8</b> | <b>1</b> | <b>4</b> | <b>8</b> | <b>123</b> |

## 2. REVISIONS TO LEGISLATIVE AND OTHER MANDATES

There have been no significant changes to the Mining Qualifications Authority's legislative and other mandates.

## 3. OVERVIEW OF 2017/18 BUDGET AND MTEF ESTIMATES

### 3.1 Expenditure estimates – The expenditure estimates are indicated below:

| STATEMENT OF FINANCIAL PERFORMANCE   |                 |           |           |                 |                      |           |           |
|--------------------------------------|-----------------|-----------|-----------|-----------------|----------------------|-----------|-----------|
|                                      | AUDITED OUTCOME |           |           | APPROVED BUDGET | MEDIUM-TERM ESTIMATE |           |           |
| R THOUSAND                           | 2013/14         | 2014/15   | 2015/16   | 2016/17         | 2017/18              | 2018/19   | 2019/20   |
| Revenue                              |                 |           |           |                 |                      |           |           |
| Tax revenue                          | -               | -         | -         | -               | -                    | -         | -         |
| Non-tax revenue                      | 42,632          | 45,648    | 49,838    | 50,572          | 53,101               | 55,756    | 59,659    |
| than capital assets of which:        |                 |           |           |                 |                      |           |           |
| Administrative fees                  | -               | -         | -         | -               | -                    | -         | -         |
| Other sales                          | -               | -         | -         | -               | -                    | -         | -         |
| Other non-tax revenue                | -               | -         | -         | -               | -                    | -         | -         |
|                                      | 42,632          | 45,648    | 49,838    | 50,572          | 53,101               | 55,756    | 59,659    |
| Transfers received                   | 894,452         | 971,303   | 1,021,522 | 1,016,425       | 1,168,889            | 1,344,223 | 1,438,319 |
| Total revenue                        | 937,084         | 1,016,951 | 1,071,360 | 1,066,997       | 1,221,990            | 1,399,978 | 1,497,976 |
| Expenses                             |                 |           |           |                 |                      |           |           |
| Current Expenses                     | 89,350          | 108,303   | 121,786   | 136,669         | 144,732              | 154,657   | 165,483   |
| Compensation of Employees            |                 | 60,987    | 68,815    | 72,914          | 78,017               | 83,479    | 89,322    |
| Goods and Services                   | 36,555          | 42,724    | 44,904    | 52,709          | 56,399               | 60,346    | 64,570    |
| Depreciation                         | 2,542           | 2,404     | 4,415     | 4,432           | 3,379                | 3,548     | 3,796     |
| Losses from disposal of assets       | 80              | 72        | 212       | -               | -                    | -         | -         |
| Interest, dividends and rent on land | 39              | 25        | 30        | 8               | -                    | -         | -         |
| Transfer to QCTO                     | 1,299           | 2,505     | 3,627     | 6,607           | 6,937                | 7,284     | 7,794     |
| Transfers and subsidies              | 737,571         | 919,551   | 1,025,324 | 1,380,046       | 1,437,476            | 1,509,350 | 1,615,004 |
| Discretionary Grant Expenditure      | 507,282         | 724,762   | 837,577   | 1,151,350       | 1,208,918            | 1,269,364 | 1,358,219 |
| Mandatory Grant Expenditure          | 230,289         | 194,789   | 187,747   | 228,696         | 228,558              | 239,986   | 256,785   |
| Total Expenses                       | 826,921         | 1,027,854 | 1,147,352 | 1,516,715       | 1,582,208            | 1,664,007 | 1,780,487 |
| Surplus/(Deficit)                    | 110,163         | -34,575   | -75,992   | 449,717         | 360,219              | 264,029   | 282,511   |



| STATEMENT OF FINANCIAL PERFORMANCE            |                 |                |                |                 |                      |                |                |
|-----------------------------------------------|-----------------|----------------|----------------|-----------------|----------------------|----------------|----------------|
| R THOUSAND                                    | AUDITED OUTCOME |                |                | APPROVED BUDGET | MEDIUM-TERM ESTIMATE |                |                |
|                                               | 2013/14         | 2014/15        | 2015/16        | 2016/17         | 2017/18              | 2018/19        | 2019/20        |
| <b>ASSETS</b>                                 |                 |                |                |                 |                      |                |                |
| Cash & Cash Equivalents                       | 730,314         | 720,014        | 775,876        | 95,000          | 81,266               | 134,126        | 93,532         |
| Inventory loans                               | 247             | 427            | 302            | 240             | 180                  | 135            | 160            |
| Accrued investment                            | 555             | 520            | -              | -               | -                    | -              | -              |
| Receivables and prepayments                   | 20,351          | 17,123         | 27,921         | 10,169          | 7,627                | 5,720          | 8,203          |
| Carrying value of assets                      | 59,887          | 62,334         | 66,553         | 68,723          | 72,159               | 75,767         | 78,450         |
| Non-current assets held for sale              | -               | -              | -              | -               | -                    | -              | -              |
| Defined benefit plan assets                   | -               | -              | -              | -               | -                    | -              | -              |
| Taxation                                      | -               | -              | -              | -               | -                    | -              | -              |
| Derivatives financial instruments             | -               | -              | -              | -               | -                    | -              | -              |
| <b>TOTAL ASSETS</b>                           | <b>811,354</b>  | <b>800,418</b> | <b>870,652</b> | <b>174,132</b>  | <b>161,233</b>       | <b>215,748</b> | <b>180,345</b> |
| <b>EQUITY &amp; LIABILITIES</b>               |                 |                |                |                 |                      |                |                |
| Accumulated surplus/(deficit)                 | 110,163         | 34,575         | -75,992        | 449,717         | 360,219              | 264,029        | 282,511        |
| Capital and reserves                          | 373,684         | 483,847        | 396,964        | 443,200         | 443,200              | 410,734        | 358,854        |
| Capital reserve fund borrowings               | -               | -              | -              | -               | -                    | -              | -              |
| Finance lease                                 | 52              | 165            | -              | -               | -                    | -              | -              |
| Deferred income                               | -               | -              | -              | -               | -                    | -              | -              |
| Trade and other payables                      | 247,709         | 183,438        | 287,967        | 50,376          | 32,745               | 65,210         | 38,762         |
| Benefits payables                             | -               | -              | -              | -               | -                    | -              | -              |
| Capitalised value of pension taxation         | -               | -              | -              | -               | -                    | -              | -              |
| Provisions                                    | 79,746          | 167,543        | 185,721        | 180,650         | 27,875               | 3,833          | 65,240         |
| Managed funds (e.g. poverty alleviation fund) | -               | -              | -              | -               | -                    | -              | -              |
| Derivatives financial instruments             | -               | -              | -              | -               | -                    | -              | -              |
| <b>TOTAL EQUITY &amp; LIABILITIES</b>         | <b>811,354</b>  | <b>800,418</b> | <b>870,652</b> | <b>174,133</b>  | <b>161,233</b>       | <b>215,748</b> | <b>180,345</b> |

### 3.2 Relating expenditure trends to strategic outcome-orientated goals

The revenue on interest, dividend and rent on land relates to only interest received on short-term investments. Between 2010/11 and 2016/17 the interest received will decrease by 35% (at an average of 5% per year). The decrease is attributed by the successive drops in the prime lending rate in 2013/14 and due to maintaining a low bank balance in the MTEF as compared to the prior years.

The decrease in transfers received is attributed to conservative estimates by the MQA due to assumptions that jobs in the mining industry will shed by 3% due to declining mineral reserves.

The increase in administration cost is due to an additional post to the establishment, expenses introduced by the purchase of the new building and activities introduced by the establishment of regional offices.

The high increases in discretionary grants between 2010/11 and 2016/17 are due to the change in grant regulation which was effective from 01 April 2013.





PART B:  
PROGRAMME AND  
SUB-PROGRAMME PLANS

## 4a. PROGRAMME 1: ADMINISTRATION

The aim is to streamline the internal business processes, systems and procedures to meet MQA strategic objectives. This includes the alignment of standing committees with MQA Board objectives and governance to ensure compliance with all legislation.

### 4.1.a Strategic objective annual targets for 2017/18

| # | Strategic Objective                                            | Audited/Actual Performance |                                |         | Estimated Performance          | Medium-term Targets            |                                |                                |
|---|----------------------------------------------------------------|----------------------------|--------------------------------|---------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|   |                                                                | 2013/14                    | 2014/15                        | 2015/16 | 2016/17                        | 2017/18                        | 2018/19                        | 2019/20                        |
| 1 | Promote efficient and effective governance and administration. | -                          | 100% of Performance indicators | -       | 100% of Performance indicators | 100% of Performance indicators | 100% of Performance indicators | 100% of Performance indicators |

### 4.2.b Programme performance indicators and annual targets for 2017/18

| #   | Programme Performance Indicator                      | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |                     |                     |
|-----|------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------------------|---------------------|
|     |                                                      | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19             | 2019/20             |
| 1.1 | Clean audit outcome                                  | -                          | -       | -       | -                     | Clean Audit Outcome | Clean Audit Outcome | Clean Audit Outcome |
| 1.2 | MQA organization wide compliance report              | 100%                       | 100%    | 100%    | 100%                  | 1                   | 1                   | 1                   |
| 1.3 | Percentage utilization of BBBEE Level 1 -4 suppliers | -                          | 93%     | 92%     | 95%                   | 80%                 | 80%                 | 80%                 |

| #   | Programme Performance Indicator                                                                  | Audited/Actual Performance |               |                 | Estimated Performance | Medium-term Targets |           |           |
|-----|--------------------------------------------------------------------------------------------------|----------------------------|---------------|-----------------|-----------------------|---------------------|-----------|-----------|
|     |                                                                                                  | 2013/14                    | 2014/15       | 2015/16         | 2016/17               | 2017/18             | 2018/19   | 2019/20   |
| 1.4 | Percentage of MQA projects monitored per annum (previously number of projects)                   | -                          | -             | 10 projects     | 100 projects          | 80%                 | 85%       | 85%       |
| 1.5 | One Stakeholder Satisfaction Survey completed every second year for 2014/15, 2016/17 and 2018/19 | -                          | 1 survey      | -               | 1 survey              | -                   | 1 survey  | -         |
| 1.6 | Annual International Literacy Day Event hosted                                                   | 1 Event                    | 1 Event       | 1 Event         | 1 Event               | 1 Event             | 1 Event   | 1 Event   |
| 1.7 | Number of Career Guidance Events held per annum                                                  | 78 Events                  | 6041 Learners | 13,971 Learners | 50 Events             | 60 Events           | 70 Events | 80 Events |
| 1.8 | Adherence to turnaround time prescribed in MQA business processes                                | -                          | -             | -               | -                     | 80%                 | 85%       | 85%       |

#### 4.3.a Quarterly targets for 2017/18

| Performance Indicator |                                                      | Reporting Period | Annual target 2017/18 | Quarterly Targets   |                     |                     |                     |
|-----------------------|------------------------------------------------------|------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|
|                       |                                                      |                  |                       | 1 <sup>st</sup>     | 2 <sup>nd</sup>     | 3 <sup>rd</sup>     | 4 <sup>th</sup>     |
| 1.1                   | Clean audit outcome                                  | Annually         | Clean Audit Outcome   | Clean Audit Outcome | Clean Audit Outcome | Clean Audit Outcome | Clean Audit Outcome |
| 1.2                   | MQA organization wide compliance report              | Annually         | 100%                  | 0                   | 0                   | 0                   | 1                   |
| 1.3                   | Percentage utilization of BBBEE Level 1 -4 suppliers | Annually         | 80%                   | 80%                 | 80%                 | 80%                 | 80%                 |

| Performance Indicator |                                                                                                  | Reporting Period | Annual target 2017/18 | Quarterly Targets |                 |                 |                 |
|-----------------------|--------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|-----------------|-----------------|-----------------|
|                       |                                                                                                  |                  |                       | 1 <sup>st</sup>   | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> |
| 1.4                   | Percentage of MQA projects monitored per annum (previously number of projects)                   | Annually         | 80%                   | 20%               | 20%             | 20%             | 20%             |
| 1.5                   | One Stakeholder Satisfaction Survey completed every second year for 2014/15, 2016/17 and 2018/19 | Bi-annually      | -                     | -                 | -               | -               | -               |
| 1.6                   | Annual International Literacy Day Event hosted                                                   | Annually         | 1 Event               | 0                 | 1 Event         | 0               | 0               |
| 1.7                   | Number of Career Guidance Events held per annum                                                  | Annually         | 60<br>Events          | 20                | 10              | 10              | 20              |
| 1.8                   | Adherence to turnaround time prescribed in MQA business processes                                | Annually         | 80%                   | 80%               | 80%             | 80%             | 80%             |

## 4b. PROGRAMME 2: SECTOR SKILLS PLANNING RESEARCH

### 4.1. b Strategic objectives annual targets for 2017/18

| # | Strategic Objective                                                      | Audited/Actual Performance     |                                |                                | Estimated Performance          | Medium-term Targets            |                                |                                |
|---|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|   |                                                                          | 2013/14                        | 2014/15                        | 2015/16                        | 2016/17                        | 2017/18                        | 2018/19                        | 2019/20                        |
| 2 | Improve skills development planning and decision-making through research | 100% of Performance Indicators | 100% of Performance Indicators | 139% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators |

#### 4.2. b Programme performance indicators and annual targets for 2017/18

| #   | Programme Performance Indicator                                                                                                                                         | Audited/Actual Performance |         |                     | Estimated Performance | Medium-term Targets |                  |                  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|---------------------|-----------------------|---------------------|------------------|------------------|
|     |                                                                                                                                                                         | 2013/14                    | 2014/15 | 2015/16             |                       | 2017/18             | 2018/19          | 2019/20          |
| 2.1 | Number of Skills Development<br><br>Facilitator capacity building workshops per annum                                                                                   | 889                        | 1383    | 765<br>Participants | 800<br>Participants   | 20<br>Workshops     | 30<br>Workshops  | 40<br>Workshops  |
| 2.2 | Number of Skills Development<br><br>Committee Member capacity building workshops per annum                                                                              | -                          | -       | 523<br>Participants | 550<br>Participants   | 100<br>Workshops    | 150<br>Workshops | 200<br>Workshops |
| 2.3 | Number of Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) evaluated for Small Levy Paying, Medium and Large Firms to access mandatory grants per annum | -                          | 573     | 609                 | 650                   | 660                 | 650              | 650              |
| 2.4 | Number of sector research outputs completed per annum                                                                                                                   | 3                          | 5       | 11                  | 9                     | 9                   | 9                | 9                |

|     |                                                                                                                    |   |   |   |   |   |   |   |
|-----|--------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 2.5 | Collaborate with Higher Education Institutions regarding skills development research in mining and minerals sector | 1 | 2 | 3 | 3 | 3 | 3 | 3 |
|-----|--------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|

#### 4.3. b Quarterly targets for 2017/18

| Performance Indicator |                                                                                                                                                                         | Reporting Period | Annual target 2017/18 | Quarterly Targets |                 |                 |                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|-----------------|-----------------|-----------------|
|                       |                                                                                                                                                                         |                  |                       | 1 <sup>st</sup>   | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> |
| 2.1                   | Number of Skills Development Facilitator capacity building workshops per annum                                                                                          | Annually         | 20<br>Workshops       | 1<br>Workshops    | 4<br>Workshops  | 5<br>Workshops  | 10<br>Workshops |
| 2.2                   | Number of Skills Development Committee Member capacity building workshops per annum                                                                                     | Annually         | 100<br>Workshops      | 10<br>Workshops   | 25<br>Workshops | 25<br>Workshops | 40<br>Workshops |
| 2.3                   | Number of Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) evaluated for Small Levy Paying, Medium and Large Firms to access mandatory grants per annum | Annually         | 660                   | 0                 | 600             | 30              | 30              |
| 2.4                   | Number of sector research outputs completed per annum                                                                                                                   | Annually         | 9                     | 0                 | 1               | 0               | 8               |
| 2.5                   | Collaborate with Higher Education Institutions regarding skills development research in mining and minerals sector                                                      | Annually         | 3                     | 1                 | 1               | 1               | 0               |

## 4c. PROGRAMME 3: LEARNING PROGRAMMES / SKILLS DEVELOPMENT

### 4.1.c Strategic objective annual targets for 2017/18

| # | Strategic Objective                                                                              | Audited/Actual Performance     |                                |                                | Estimated Performance          | Medium-term Targets            |                                |                                |
|---|--------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|   |                                                                                                  | 2013/14                        | 2014/15                        | 2015/16                        |                                | 2017/18                        | 2018/19                        | 2019/20                        |
| 3 | Promote work-based skills development to support transformation in the mining and mineral sector | 101% of Performance Indicators | 110% of Performance Indicators | 68% of Performance Indicators  | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators |
| 4 | Facilitate access to occupationally directed learning programmes for the unemployed              | 80% of Performance Indicators  | 100% of Performance Indicators | 69% of Performance Indicators  | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators |
| 5 | Support mine community training initiatives to access economic opportunities.                    | -                              | -                              | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators | 100% of Performance Indicators |

#### 4.2.c Programme performance indicators and annual targets for 2017/18

| #    | Programme Performance Indicator                                                                              | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|------|--------------------------------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|      |                                                                                                              | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.1a | Number of employees entering a Learnership per annum                                                         | -                          | -       | 1241    | 1800                  | 1500                | 1600    | 1650    |
| 3.1b | Number of employees completing a Learnership per annum                                                       | -                          | -       | 331     | 1440                  | 800                 | 900     | 1000    |
| 3.1c | Number of employees completing RPL for learnerships                                                          | -                          | -       | 23      | 200                   | 200                 | 200     | 200     |
| 3.2a | Number of HDSA MMS employees that enter a management development programme per annum                         | 135                        | -       | 150     | 150                   | 250                 | 250     | 250     |
| 3.2b | Number of HDSA MMS employees that complete a management development programme per annum                      | -                          | -       | 75      | 150                   | 150                 | 150     | 150     |
| 3.3a | Number of employees that enter the Occupational Health and Safety representatives skills programme per annum | -                          | 6438    | 4694    | 6000                  | 6200                | 6500    | 6500    |

| #    | Programme Performance Indicator                                                                                               | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|      |                                                                                                                               | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.3b | Number of employees that successfully complete the Occupational Health and Safety representatives' skills programme per annum | 10068                      | 4339    | 4519    | 6000                  | 6200                | 6000    | 6000    |
| 3.4a | Number of HDSA MMS learners that enter a candidacy programme per annum                                                        | -                          | -       | -       | 100                   | 100                 | 100     | 100     |
| 3.4b | Number of HDSA MMS learners that complete a candidacy programme per annum                                                     | -                          | -       | -       | 100                   | 100                 | 100     | 100     |
| 3.5a | Number of HDSA HET lecturers that enter into a lecturer development programme per annum                                       | 25                         | 27      | 27      | 27                    | 30                  | 30      | 30      |

| #    | Programme Performance Indicator                                                       | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|------|---------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|      |                                                                                       | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.5b | Number of HDSA HET lecturers that complete a lecturer development programme per annum | -                          | -       | -       | -                     | -                   | -       | 30      |
| 3.6  | Number of TVET lecturers placed for workplace exposure per annum                      | 17                         | 20      | 20      | 20                    | 30                  | 30      | 30      |
| 3.7a | Number of learners that enter an artisan programme per annum                          | 2164                       | 2432    | 1235    | 2600                  | 1500                | 1500    | 1500    |
| 3.7b | Number of learners that complete an artisan programme per annum                       | 1735                       | 1703    | 1267    | 1750                  | 1800                | 1800    | 1800    |
| 3.7c | Number of learners that complete an artisan aides programme per annum                 | 97                         | 191     | 414     | 450                   | 400                 | 400     | 400     |
| 3.8a | Number of learners that enter AET levels 1-4                                          | 6397                       | -       | -       | 4600                  | 4700                | 4800    | 5000    |

| #     | Programme Performance Indicator                                        | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|-------|------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|       |                                                                        | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.8b  | Number of learners that successfully complete AET programme levels 1-4 | 2556                       | 2151    | 2364    | 2350                  | 2500                | 2600    | 2700    |
| 3.8c  | Number of learners that successfully complete FLC programmes           | 451                        | 257     | 274     | 280                   | 280                 | 290     | 300     |
| 3.9a  | Numbers of unemployed learners that enter a Learnership per annum      | 2814                       | 3264    | 671     | 2200                  | 2400                | 1000    | 1000    |
| 3.9b  | Numbers of unemployed learners that complete a Learnership per annum   | -                          | 1000    | 186     | 1000                  | 500                 | 550     | 600     |
| 3.10a | Number of unemployed learners awarded a bursary per annum              | 787                        | 535     | 1310    | 700                   | 1000                | 1000    | 1000    |
| 3.10b | Number of unemployed learners awarded a bursary completing per annum   | -                          | -       | 228     | 300                   | 600                 | 650     | 700     |

| #     | Programme Performance Indicator                                                    | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|-------|------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|       |                                                                                    | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.11a | Number of undergraduates that enter a work place experience programme per annum    | 431                        | 822     | 723     | 500                   | 600                 | 650     | 700     |
| 3.11b | Number of undergraduates that complete a work place experience programme per annum | -                          | -       | 338     | 300                   | 340                 | 350     | 360     |
| 3.12a | Number of TVET NCV graduates that enter a work placement programme per annum       | 250                        | 89      | 529     | 200                   | 250                 | 260     | 260     |
| 3.12b | Number of TVET NCV graduates that complete a work placement programme per annum    | -                          | -       | 60      | 100                   | 200                 | 200     | 200     |
| 3.13a | Number of graduates that enter an Internship programme per annum                   | 600                        | 699     | 454     | 450                   | 500                 | 530     | 550     |

| #      | Programme Performance Indicator                                                                       | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|--------|-------------------------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|        |                                                                                                       | 2013/14                    | 2014/15 | 2015/16 | 2016/17               | 2017/18             | 2018/19 | 2019/20 |
| 3.13 b | Number of graduates that complete an Internship programme per annum                                   | -                          | -       | 275     | 235                   | 275                 | 280     | 290     |
| 3.14a  | Number of retrenched employees that enter a training programme per annum                              | -                          | -       | 1028    | 5000                  | 6000                | 7000    | 8000    |
| 3.14b  | Number of retrenched employees that complete a training programme per annum                           | -                          | -       | 1028    | 5000                  | 6000                | 7000    | 8000    |
| 3.15a  | Number of unemployed beneficiaries in mining communities that enter a training programme per annum    | -                          | 700     | 534     | 3250                  | 4000                | 5000    | 6000    |
| 3.15b  | Number of unemployed beneficiaries in mining communities that complete a training programme per annum | -                          | 700     | 534     | 3250                  | 4000                | 5000    | 6000    |



| #    | Programme Performance Indicator                                                                                             | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|      |                                                                                                                             | 2013/14                    | 2014/15 | 2015/16 |                       | 2017/18             | 2018/19 | 2019/20 |
| 3.16 | Number of beneficiaries trained in Small-scale Mining per annum                                                             | -                          | -       | -       | 50                    | 60                  | 70      | 80      |
| 3.17 | Number of coaches placed within workplaces to support employers with on-the-job mentoring and coaching activities per annum | -                          | -       | 51      | 50                    | 50                  | 50      | 50      |
| 3.18 | Number of grade 10,11 and 12 learners that enter into Maths and Science support programme                                   | 1261                       | 1037    | 1010    | 1200                  | 1200                | 1200    | 1200    |



#### 4.3.c Quarterly targets for 2017/18

| Performance Indicator |                                                        | Reporting Period | Annual target 2017/18 | Quarterly Targets |     |     |      |
|-----------------------|--------------------------------------------------------|------------------|-----------------------|-------------------|-----|-----|------|
|                       |                                                        |                  |                       | 1st               | 2nd | 3rd | 4th  |
| 3.1a                  | Number of employees entering a Learnership per annum   | Annually         | 1500                  | 375               | 35  | 90  | 1000 |
| 3.1b                  | Number of employees completing a Learnership per annum | Annually         | 800                   | 100               | 100 | 400 | 200  |
| 3.1c                  | Number of employees completing RPL for learnerships    | Annually         | 200                   | 50                | 50  | 50  | 50   |

| Performance Indicator |                                                                                                                               | Reporting Period | Annual target 2017/18 | Quarterly Targets |      |      |      |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|------|------|------|
|                       |                                                                                                                               |                  |                       | 1st               | 2nd  | 3rd  | 4th  |
| 3.2a                  | Number of HDSA MMS employees that enter a management development programme per annum                                          | Annually         | 250                   | 250               | 0    | 0    | 0    |
| 3.2b                  | Number of HDSA MMS employees that complete a management development programme per annum                                       | Annually         | 150                   | 0                 | 0    | 0    | 150  |
| 3.3a                  | Number of employees that enter the Occupational Health and Safety Representatives' skills programme per annum                 | Annually         | 6200                  | 1550              | 1550 | 1550 | 1550 |
| 3.3b                  | Number of employees that successfully complete the Occupational Health and Safety Representatives' skills programme per annum | Annually         | 6200                  | 1550              | 1550 | 1550 | 1550 |
| 3.4a                  | Number of HDSA MMS learners that enter a candidacy programme per annum                                                        | Annually         | 100                   | 100               | 0    | 0    | 0    |

|      |                                                                           |          |     |   |   |   |     |
|------|---------------------------------------------------------------------------|----------|-----|---|---|---|-----|
| 3.4b | Number of HDSA MMS learners that complete a candidacy programme per annum | Annually | 100 | 0 | 0 | 0 | 100 |
|------|---------------------------------------------------------------------------|----------|-----|---|---|---|-----|

| Performance Indicator |                                                                                         | Reporting Period | Annual target 2017/18 | Quarterly Targets |     |     |     |
|-----------------------|-----------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|-----|-----|-----|
|                       |                                                                                         |                  |                       | 1st               | 2nd | 3rd | 4th |
| 3.5a                  | Number of HDSA HET lecturers that enter into a lecturer development programme per annum | Annually         | 30                    | 30                | 0   | 0   | 0   |
| 3.5b                  | Number of HDSA HET lecturers that complete a lecturer development programme per annum   | Annually         | -                     | -                 | -   | -   | -   |
| 3.6                   | Number of HDSA TVET lecturers placed for workplace exposure per annum                   | Annually         | 30                    | 20                | 10  | 0   | 0   |
| 3.7a                  | Number of learners that enter an artisan programme per annum                            | Annually         | 1500                  | 150               | 300 | 300 | 750 |
| 3.7b                  | Number of learners that complete an artisan programme per annum                         | Annually         | 1800                  | 200               | 300 | 400 | 900 |
| 3.7c                  | Number of learners that complete an artisan aides programme per annum                   | Annually         | 400                   | 50                | 125 | 125 | 100 |

| Performance Indicator |                                                                        | Reporting Period | Annual target 2017/18 | Quarterly Targets |      |      |      |
|-----------------------|------------------------------------------------------------------------|------------------|-----------------------|-------------------|------|------|------|
|                       |                                                                        |                  |                       | 1st               | 2nd  | 3rd  | 4th  |
| 3.8a                  | Number of learners that enter AET levels 1-4                           | Annually         | 4700                  | 1000              | 1000 | 1000 | 1700 |
| 3.8b                  | Number of learners that successfully complete AET programme levels 1-4 | Annually         | 2500                  | 700               | 300  | 0    | 1500 |
| 3.8c                  | Number of learners that successfully complete FLC programmes           | Annually         | 280                   | 70                | 70   | 70   | 70   |
| 3.9a                  | Numbers of unemployed learners that enter a Learnership per annum      | Annually         | 2400                  | 200               | 500  | 850  | 850  |
| 3.9b                  | Numbers of unemployed learners that complete a Learnership per annum   | Annually         | 500                   | 100               | 100  | 200  | 100  |
| 3.10a                 | Number of unemployed learners awarded a bursary per annum              | Annually         | 1000                  | 0                 | 0    | 0    | 1000 |
| 3.10b                 | Number of unemployed learners awarded a bursary completing             | Annually         | 600                   | 0                 | 0    | 0    | 600  |

|       |                                                                                 |          |     |     |     |     |     |
|-------|---------------------------------------------------------------------------------|----------|-----|-----|-----|-----|-----|
| 3.11a | Number of undergraduates that enter a work place experience programme per annum | Annually | 600 | 100 | 100 | 100 | 300 |
|-------|---------------------------------------------------------------------------------|----------|-----|-----|-----|-----|-----|

| Performance Indicator |                                                                                    | Reporting Period | Annual target 2017/18 | Quarterly Targets |      |      |      |
|-----------------------|------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|------|------|------|
|                       |                                                                                    |                  |                       | 1st               | 2nd  | 3rd  | 4th  |
| 3.11b                 | Number of undergraduates that complete a work place experience programme per annum | Annually         | 340                   | 0                 | 0    | 40   | 300  |
| 3.12a                 | Number of TVET NCV graduates that enter a work placement programme per annum       | Annually         | 250                   | 0                 | 50   | 100  | 100  |
| 3.12b                 | Number of TVET NCV graduates that complete a work placement programme per annum    | Annually         | 200                   | 0                 | 0    | 100  | 100  |
| 3.13a                 | Number of graduates that enter an Internship programme per annum                   | Annually         | 500                   | 50                | 50   | 200  | 200  |
| 3.13b                 | Number of graduates that complete an Internship programme per annum                | Annually         | 275                   | 60                | 70   | 70   | 75   |
| 3.14a                 | Number of retrenched employees that enter a training programme per annum           | Annually         | 6000                  | 1500              | 1500 | 1500 | 1500 |

| Performance Indicator |                                                                                                                             | Reporting Period | Annual target 2017/18 | Quarterly Targets |      |      |      |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|------|------|------|
|                       |                                                                                                                             |                  |                       | 1st               | 2nd  | 3rd  | 4th  |
| 3.14b                 | Number of retrenched employees that complete a training programme per annum                                                 | Annually         | 6000                  | 1500              | 1500 | 1500 | 1500 |
| 3.15a                 | Number of unemployed beneficiaries in mining communities that enter a training programme per annum                          | Annually         | 4000                  | 1000              | 1000 | 1000 | 1000 |
| 3.15b                 | Number of unemployed beneficiaries in mining communities that complete a training programme per annum                       | Annually         | 4000                  | 1000              | 1000 | 1000 | 1000 |
| 3.16                  | Number of beneficiaries trained in Small- scale Mining per annum                                                            | Annually         | 60                    | 0                 | 30   | 30   | 0    |
| 3.17                  | Number of coaches placed within workplaces to support employers with on-the-job mentoring and coaching activities per annum | Annually         | 50                    | 25                | 25   | 0    | 0    |
| 3.18                  | Number of grade 10,11 and 12 learners that enter into Maths and Science support programme                                   | Annually         | 1200                  | 0                 | 0    | 0    | 1200 |



#### 4d. PROGRAMME 4: EDUCATION AND TRAINING QUALITY ASSURANCE

##### 4.1.d Strategic objective annual targets for 2017/18

| # | Strategic Objective                                                                   | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|---|---------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|   |                                                                                       | 2013/14                    | 2014/15 | 2015/16 |                       | 2017/18             | 2018/19 | 2019/20 |
| 6 | Ensure the delivery of quality learning programmes in the Mining and Minerals Sector. | -                          | -       | -       | 100%                  | 100%                | 100%    | 100%    |

##### 4.2.d Programme performance indicators and annual targets for 2017/18

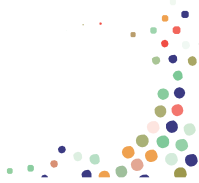
| #   | Programme Performance Indicator                                                                                              | Audited/Actual Performance |         |         | Estimated Performance | Medium-term Targets |         |         |
|-----|------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|---------|-----------------------|---------------------|---------|---------|
|     |                                                                                                                              | 2013/14                    | 2014/15 | 2015/16 |                       | 2017/18             | 2018/19 | 2019/20 |
| 4.1 | Number of training providers quality assured per annum                                                                       | 106%                       | 224     | 157     | 160                   | 150                 | 200     | 230     |
| 4.2 | Review: Number of updated/amended qualifications, Skills programmes, learning materials and learnerships as per sector needs | -                          | -       | -       | 50                    | 80                  | 50      | 50      |

|     |                                                                                   |   |   |   |    |    |    |    |
|-----|-----------------------------------------------------------------------------------|---|---|---|----|----|----|----|
| 4.3 | Number of historically disadvantaged South Africans training providers accredited | - | - | - | 10 | 10 | 10 | 10 |
|-----|-----------------------------------------------------------------------------------|---|---|---|----|----|----|----|



#### 4.3.d Quarterly targets for 2017/18

| Performance Indicator |                                                                                                                              | Reporting Period | Annual target 2017/18 | Quarterly Targets |     |     |     |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------|-----|-----|-----|
|                       |                                                                                                                              |                  |                       | 1st               | 2nd | 3rd | 4th |
| 4.1                   | Number of training providers quality assured per annum                                                                       | Annually         | 150                   | 30                | 60  | 30  | 30  |
| 4.2                   | Review: Number of updated/amended qualifications, Skills programmes, learning materials and learnerships as per sector needs | Annually         | 80                    | 0                 | 10  | 25  | 45  |
| 4.3                   | Number of historically disadvantaged South Africans training providers accredited                                            | Annually         | 10                    | 0                 | 5   | 5   | 0   |



## MATERIALITY AND SIGNIFICANCE FRAMEWORK (YEAR END: 31 MARCH 2016)

### **Materiality and Significance Framework (Year end: 31 March 2015)**

In terms of Treasury Regulations (Sections 28.1.5, 28.2.1, 30.1.3(e)) issued in terms of the Public Finance Management Act, Act no.1 of 1999, the accounting authority of the MQA must develop and agree a framework of acceptable levels of materiality and significance with the relevant executive authority.

The ethical conduct of the MQA Board and staff is built on moral values such as trust, integrity, confidentiality and discretion and underpins our commitment to adhere to the highest possible acceptable norms and standards of society in all our dealings with our clients and stakeholders as well as the relationships within the organisation.

Our staff members will refrain from any conduct, which may be prejudicial to the image, name and good standing of the MQA and will ensure that all activities will be done according to the legal framework of South Africa

The specific sections of the PFMA that has relevance for the purposes of material is Section 50(1), Section 55(2) and Section 66(1) and for significance is Section 54(2).

Ameliorate

### **Definition of Materiality**

Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. This materiality provides a threshold or cut- off point, rather than being a primary qualitative characteristic which information must have if it is to be useful<sup>1</sup>.

### **Definition of significant**

Extensive or important enough to merit attention. In the development of the framework we considered both the quantitative and qualitative aspects.

### **Factors considered in developing the framework**

#### **Nature of the business**

The MQA is responsible for skills development facilitation in the MMS



## Statutory Requirements

The SETA is a public organisation that is accountable to many stakeholders. A lower level of materiality is apt in light of the strict legislation within which the SETA operates.

## Control and Inherent Risks

The following factors were examined in determining the materiality percentage:

- a. Annual Risk assessment (outsourced to a reputable auditing firm)
- b. 3 year internal audit plan
- c. Fraud Prevention plan
- d. Appropriate approvals framework
- e. A well-structured procurement policy tying in with the relevant legislation
- f. The implementation and adoption of a Quality Management System.
- g. Technical competence (qualifications), skills and experience of staff engaged in the decision making process including the governance structure.
- h. Structure of the Audit Committee with reference to King's Code of Corporate Governance
- i. Appointment of internal auditors (external to the MQA) to ensure an independent report on areas of non-conformance.

## Materiality Level

The level of a material loss for Grant expenditure is assessed at R 3 450 115 (rounded) being 0.25% of budgeted Total Revenue for 2016/2017. Previous financial year was R 3 593 690.

The level of a material loss for Operational/Administrative expenditure is assessed at R 1 447 320 (rounded) being 1% of budgeted Total Administration expenses for 2017/2018. Previous financial year was R 1 366 690.

Different levels of materiality can be used and the decision to use a conservative level of 0.25% is based on the fact that the total assets of MQA is not considered to be an indicator of performance as MQA is not an asset intensive entity and the revenue component is selected as a basis for the materiality calculation as the level of activity (grant and discretionary payments) is dependent on the levies received.

## Qualitative Factors considered

Materiality does not only relate to the size of the assets and the elements of the financial statements. Misstatements that are large individually or in aggregate may affect a reasonable user's judgement. Misstatements may also be material on qualitative grounds. We have considered the following qualitative factors:

- a. Unusual transactions entered into that are not of a repetitive nature and are disclosable purely due to the nature thereof due to knowledge thereof affecting the decision making of the user of financial statements.
- b. Sizeable increase in our stakeholder base, that is, more organisations contributing SDL to MQA levy income base.
- c. Fraudulent or dishonest behaviour of an officer or staff of the SETA at senior management level.

Any

- d. Rand value to be disclosed.
- e. Fraudulent or dishonest behaviour of ALL other employees or officers of MQA, if in aggregate or individually the



sum total of those transactions exceeds R1000.00

- f. Material infringement of legislation that governs MQA.
- g. Any transaction entered into that could result in reputational risk to MQA.
- h. Changes in key personnel and departure of key executives.
- i. Application of new or changes in accounting policy.

## Materiality Framework aligned to Treasury Regulation

| TREASURY REGULATION 28.1.5                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “For purposes of “material” [section 50(1), 55(2) and 66(1) (c) of the Act] and “significant” [section 54(2) of the Act], the accounting authority must develop and agree on a framework of acceptable levels of materiality and significance with the relevant executive authority in consultation with the external auditors.” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                |
| REGULATION                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MATERIAL                                                                                                                                                       |
| Section 50(1)                                                                                                                                                                                                                                                                                                                    | (1) The accounting authority for a public entity must –<br><br>(c) on request disclose to the executive authority responsible for that public entity or the legislature to which the public entity is accountable, all material facts, including those reasonably discoverable, which in any way influence the decision or actions of the executive authority or that legislature; and                                                                                                                                                                                                                                                                                                                                                                             | Both the qualitative and quantitative aspects as referred to in sections 3 and 4.                                                                              |
| Section 55(2)                                                                                                                                                                                                                                                                                                                    | (b) include particulars of –<br><br>(i) any material losses through criminal conduct and any irregular expenditure and fruitless and wasteful expenditure that occurred during the financial year;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Section 3 and 4 define the qualitative and qualitative aspects that are considered for the purpose of this section.                                            |
| Section 66(1)                                                                                                                                                                                                                                                                                                                    | (1) An institution to which this Act applies may not borrow money or issue a guarantee, indemnity or security, or enter into any other transaction that binds or may bind that institution or the Revenue Fund to any future financial commitment, unless such borrowing, guarantee, indemnity, security or other transaction –<br><br>(a) is authorised by this act;<br><br>(b) in the case of public entities, is also authorised by other legislation not in conflict with this Act; and<br><br>(c) in the case of loans by a province or a provincial government business enterprise under the ownership control of a provincial executive, is within the limits as set in terms of the Borrowing Powers of Provincial Governments Act, 1996 (Act 48 of 1996). | Losses incurred due to criminal conduct by 100% compliance with the Act within the ambit as set by this clause. Full disclosure required for all transactions. |
| Section 54(2)                                                                                                                                                                                                                                                                                                                    | Before a public entity concludes any of the following transactions, the accounting authority for the public entity must promptly and in writing inform the relevant treasury of the transaction and submit relevant particulars of the transaction to its executive authority for approval of the transaction<br><br>(a) establishment or participation in the establishment of a company;<br><br>(b) participation in a significant partnership, trust, unincorporated joint venture or similar arrangement;<br><br>(c) acquisition of disposal or a significant shareholding in a company;<br><br>(d) acquisition or disposal of a significant asset.                                                                                                            | All transactions to be approved by the DHET.                                                                                                                   |



#### 4.4 Reconciling performance targets with the Budget and MTEF

| R THOUSAND                                     | AUDITED OUTCOME |         |           | APPROVED BUDGET | MEDIUM-TERM ESTIMATE |           |           |
|------------------------------------------------|-----------------|---------|-----------|-----------------|----------------------|-----------|-----------|
|                                                | 2013/14         | 2014/15 | 2015/16   | 2016/17         | 2017/18              | 2018/19   | 2019/20   |
| Administration                                 | 89,350          | 108,303 | 122,028   | 136,669         | 144,732              | 154,657   | 165,483   |
| Discretionary Grant                            | 494,322         | 714,377 | 812,117   | 1,151,350       | 1,208,918            | 1,269,364 | 1,358,219 |
| Other Government funding: Discretionary Grant\ | 11,780          | 12,960  | 25,460    | -               | -                    | -         | -         |
| Mandatory Grant                                | 230,289         | 194,789 | 187,747   | 228,696         | 228,558              | 239,986   | 256,785   |
| Total Expenditure                              | 823,925         | 826,921 | 1,147,352 | 1,516,715       | 1,582,208            | 1,664,007 | 1,780,487 |

#### Budget per programme

| PROGRAMME                             | AUDITED OUTCOME |           |           | APPROVED BUDGET | MTEF BUDGET ESTIMATE |           |           |
|---------------------------------------|-----------------|-----------|-----------|-----------------|----------------------|-----------|-----------|
|                                       | 2013/14         | 2014/15   | 2015/16   | 2016/17         | 2017/18              | 2018/19   | 2019/20   |
|                                       | R'000           | R'000     | R'000     | R'000           | R'000                | R'000     | R'000     |
| Programme 1                           | 89,350          | 108,303   | 121,786   | 136,669         | 144,732              | 154,657   | 163,318   |
| Programme 2 *                         | 234,941         | 195,789   | 188,836   | 230,196         | 230,163              | 241,703   | 258,623   |
| Programme 3                           | 497,980         | 722,761   | 835,641   | 1,142,985       | 1,205,708            | 1,265,929 | 1,333,413 |
| Programme 4                           | 4,652           | 1,000     | 1,089     | 1,500           | 1,605                | 1,717     | 1,838     |
| Total Expenditure                     | 826,923         | 1,027,853 | 1,147,352 | 1,511,350       | 1,582,208            | 1,664,007 | 1,757,191 |
|                                       |                 |           |           |                 |                      |           |           |
| * Includes regulated mandatory grants | 230,289         | 194,789   | 187,747   | 228,696         | 228,558              | 239,986   | 256,785   |

## DETAILED BREAKDOWNS OF DISCRETIONARY GRANTS

| MQA Project Name                               |   | AUDITED OUTCOME |                |                | APPROVED BUDGET  | MTEF BUDGET ESTIMATE |                  |                  |
|------------------------------------------------|---|-----------------|----------------|----------------|------------------|----------------------|------------------|------------------|
|                                                |   | 2013/14         | 2014/15        | 2015/16        | 2016/17          | 2017/18              | 2018/19          | 2019/20          |
|                                                |   | R'000           | R'000          | R'000          | R'000            | R'000                | R'000            | R'000            |
| A008 – Skills Development Facilitator Support  | 2 | 4,652           | 1,000          | 1,089          | 1,500            | 1,605                | 1,717            | 1,838            |
| A001 – HEI Lecturer Support                    | 3 | 10,190          | 10,353         | 11,714         | 17,900           | 19,153               | 20,494           | 21,928           |
| A002 – Bursaries                               | 3 | 58,038          | 78,237         | 87,215         | 160,613          | 171,856              | 183,886          | 196,758          |
| A003 – Work Experience                         | 3 | 47,264          | 69,027         | 109,848        | 95,210           | 101,875              | 109,006          | 116,636          |
| A006 – Internships (GDP)                       | 3 | 55,045          | 121,527        | 153,744        | 117,602          | 125,834              | 134,643          | 144,068          |
| A007 – Non Artisan Learnerships                | 3 | 56,677          | 79,877         | 74,418         | 200,144          | 190,935              | 180,122          | 174,959          |
| A009 – ABET                                    | 3 | 15,181          | 14,718         | 31,383         | 23,230           | 24,856               | 26,596           | 28,458           |
| A010 – OHS Rep Development                     | 3 | 11,492          | 12,498         | 14,108         | 15,000           | 16,050               | 17,174           | 18,376           |
| A011 – NSF 2 - Artisan Development             | 3 | 0               |                |                | 0                | 0                    | 0                | 0                |
| A012 – UIF 1 Learnerships Artisan 50% (MQA)    | 3 | 0               |                |                | 0                | 0                    | 0                | 0                |
| A013 – MQA Artisan Development                 | 3 | 105,364         | 271,572        | 217,971        | 285,577          | 305,567              | 326,957          | 349,844          |
| A014 – RPL / Artisan Aides - Employed          | 3 | 2,295           | 3,133          | 2,255          | 8,000            | 8,560                | 9,159            | 9,800            |
| A015 – TVET College Support                    | 3 | 0               | 0              | 44,652         | 43,367           | 46,403               | 49,651           | 53,126           |
| A016 – Maths & Science                         | 3 | 7,565           | 2,836          | 7,545          | 11,700           | 12,519               | 13,395           | 14,333           |
| A017 – FLC Grant Incentive                     | 3 | 1,105           | 1,720          | 1,955          | 2,100            | 2,247                | 2,404            | 2,573            |
| A018 – Mpumalanga TVET Artisan                 | 3 | 0               | 0              | 0              | 500              | 535                  | 572              | 613              |
| A019 – Mine Community Development              | 3 | 0               | 25,219         | 26,139         | 80,000           | 85,600               | 91,592           | 98,003           |
| A020 – Workplace Coach Development             | 3 | 0               | 9,042          | 7,793          | 12,600           | 13,482               | 14,426           | 15,436           |
| A021 – Youth Development                       | 3 | 0               | 7,029          | 11,356         | 40,000           | 42,800               | 45,796           | 49,002           |
| A022 – Management Development                  | 3 | 1,393           | 360            | 3,802          | 8,625            | 9,229                | 9,875            | 10,566           |
| A041 HDSA Management Development Candidacy     | 3 | 0               |                | 0              | 20,604           | 22,046               | 23,590           | 25,241           |
|                                                |   |                 |                |                |                  |                      |                  |                  |
|                                                |   |                 |                |                |                  |                      |                  |                  |
| A004 – Standard Setting                        | 4 | 3,149           | 2,243          | 1,334          | 2,758            | 2,951                | 3,158            | 3,379            |
| A005 – Learning Materials (LM) Development     | 4 | 4,015           | 3,987          | 3,797          | 4,000            | 4,280                | 4,580            | 4,900            |
| A042 HDSA Accredited Training Provider Support | 4 | 0               |                | 0              | 500              | 535                  | 572              | 613              |
|                                                |   |                 |                |                |                  |                      |                  |                  |
| <b>TOTAL EXPENDITURE</b>                       |   | <b>383,425</b>  | <b>714,378</b> | <b>812,118</b> | <b>1,151,530</b> | <b>1,208,918</b>     | <b>1,269,364</b> | <b>1,340,448</b> |

Funds for PIVOTAL Grants: R1 299 747

Funds for other skills development interventions: R22 400

% Split is 98% for PIVOTAL grants and 2% for other skills development interventions

## PROGRAMMES SUPPORTED BY PIVOTAL GRANTS

| FIELD/DISCIPLINE                           | OCCUPATION          | APP LINKAGE                                                                   | MQA<br>PROJECT<br>NUMBER | SSP 2015-2016<br>TOP 10 PIVOTAL<br>SKILLS LIST/ SCARCE<br>SKILLS LIST |
|--------------------------------------------|---------------------|-------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------|
| Metallurgical Engineering                  | Metallurgist        | 3.10a & b Supported Unemployed Learners to enter into MMS Bursary programmes. | A002                     | Links to the SSP Scarce Skills List                                   |
| Jewellery Design Manufacturing programmes. | Jewellery Designer  | 3.10a & b Support Unemployed Learners to enter into MMS Bursary               | A002                     | Links to the SSP Scarce Skills List                                   |
| Geology                                    | Geologist           | 3.10a & b Support Unemployed Learners to enter into MMS Bursary programmes    | A002                     | Links to the SSP Pivotal Skills List                                  |
| Mining Engineering                         | Mining Engineer     | 3.10a & b Support Unemployed Learners to enter into MMS Bursary programmes.   | A002                     | Links to the SSP PIVOTAL Skills List                                  |
| Mechanical Engineering                     | Mechanical Engineer | 3.10a & b Support unemployed Learners to enter into MMS Bursary programmes.   | A002                     | Links to the SSP PIVOTAL Skills List                                  |
| Mine Surveying                             | Mine Planner        | 3.10a & b Support unemployed Learners to enter into MMS Bursary programmes.   | A002                     | Links to the SSP PIVOTAL Skills List                                  |

| FIELD/DISCIPLINE                            | OCCUPATION                       | APP LINKAGE                                                                 | MQA PROJECT NUMBER | SSP 2015-2016 TOP 10 PIVOTAL SKILLS LIST/ SCARCE SKILLS LIST |
|---------------------------------------------|----------------------------------|-----------------------------------------------------------------------------|--------------------|--------------------------------------------------------------|
| Electrical Engineering (Heavy Current Only) | Electrical Engineer              | 3.10a & b Support unemployed Learners to enter into MMS Bursary programmes. | A002               | Links to the SSP PIVOTAL Skills List                         |
| Chemical Engineering (Mineral Processing)   | Chemical Engineer                | 3.10a & b Support unemployed Learners to enter into MMS Bursary programmes  | A002               | Links to the SSP Scarce Skills List                          |
| Environmental Health and Management         | Environmental Health and Manager | 3.10a & b Support unemployed Learners to enter into MMS Bursary Programmes. | A002               | Links to the SSP Scarce Skills List                          |
| Analytical Chemistry                        | Analytical Chemist               | 3.10a & b Support unemployed Learners to enter into MMS Bursary Programmes. | A002               | Links to the SSP Scarce Skills List                          |
| Electro Mechanical Engineering              | Electro Mechanical Engineer      | 3.10a & b Support unemployed Learners to enter into MMS Bursary Programmes. | A002               | Links to the SSP Scarce Skills List                          |
| Industrial Engineering                      | Industrial Engineer              | 3.10a & Support unemployed Learners to enter into MMS Bursary Programmes.   | A002               | Links to the SSP Scarce Skills List                          |

### Non- Artisan Learnerships

| FIELD/DISCIPLINE                                               | OCCUPATION                                      | APP LINKAGE           | MQA PROJECT NUMBER | SSP 2017-2018 TOP 10 PIVOTAL SKILLS LIST/ SCARCE SKILLS LIST |
|----------------------------------------------------------------|-------------------------------------------------|-----------------------|--------------------|--------------------------------------------------------------|
| Rock-Breaker (Underground Hardrock, Underground Coal, Surface) | Rock-Breaker                                    | 3.1a & b and 3.9a & b | A007               | Links to the SSP Scarce Skills List                          |
| Strata Control                                                 | Strata Controller                               | 3.1a & b and 3.9a & b | A007               | Links to the SSP Scarce Skills List                          |
| Occupational Health and Safety                                 | Occupational Health and Safety Officer/ Manager | 3.1a & b and 3.9a & b | A007               | Links to the SSP Scarce Skills List                          |

Support Transformation of the sector through skills development

To increase access to occupationally-directed programmes in the mining and mineral sector. This is done to accurately determine requisite middle level skill needs and evolve strategies to ensure increased access to occupationally-directed training related to them. The MQA is currently contributing to 3 Strategic Infrastructure Projects (SIPs) linked to the National Development Plan - which have a direct bearing on the MMS. (SIP1, SIP 4 and SIP 5)



| FIELD/<br>DISCIPLINE             | OCCUPATION                        | APP<br>LINKAGE        | MQA PROJECT<br>NUMBER | SSP 2017-2018<br>TOP 10 PIVOTAL<br>SKILLS LIST/<br>SCARCE SKILLS<br>LIST |
|----------------------------------|-----------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------|
| Mining Technical Support         | Mining Technician                 | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Mineral Survey                   | Mineral Survey                    | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Mineral Processing and Control   | Mineral Processing and Controller | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Analytical Support               | Analyst                           | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Cement and Lime Manufacturing    | Cement and Lime Machine Operator  | 3.1a & b and 3.9a     | A007                  | Links to the SSP Scarce Skills List                                      |
| Jewellery and Diamond Processing | Gold Smith                        | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Small Scale Mining               | Miner                             | 3.1a & b and 3.9a & b | A007                  | Links to the SSP Scarce Skills List                                      |
| Winding Engine Driving           | Winding Engine Driver             | 3.1a & b and 3.91 & b | A007                  | Links to the SSP Scarce Skills List                                      |

## AET

| FIELD/<br>DISCIPLINE | OCCUPATION | APP<br>LINKAGE | MQA PROJECT<br>NUMBER |                                     |
|----------------------|------------|----------------|-----------------------|-------------------------------------|
| ABET levels 1-4      | N/A        | 3.8a & b       | A009                  | Links to the SSP Scarce Skills List |
| GETC – NQF Level 1   | N/A        | 3.8a and b     | A009                  | Links to the SSP Scarce Skills List |

Support transformation of the sector through skills development

To address the low levels of youth and adult language in numeracy skills to enable access to additional training in mining. Employees whose highest level of education is between Grades 4 and 9 constitute 22% of the sector. given that changing technology and Mining Phakisa's mechanisation goals will lead to a need for upskilling of many current and future employees in the areas of machine operations and maintenance, it will be important for MQA to prioritise the funding of AET training and related foundational programmes, up to and including level 4. This will help to develop adequate literacy and numeracy levels for industry's emerging new skills requirements.

## Occupational Health and Safety OHS REP Development

| FIELD/<br>DISCIPLINE                | OCCUPATION                                      | APP<br>LINKAGE | MQA<br>PROJECT<br>NUMBER |                                     |                                                                                                                                                                                                                                                                                         |
|-------------------------------------|-------------------------------------------------|----------------|--------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| As per the OHS Rep Skills Programme | Occupational Health and Safety Officer/ Manager | 3.3a and b     | A010                     | Links to the SSP Scarce Skills List | Continue to Improve Health and Safety Standards<br><br>MQA's legislative mandates is to improve the health and safety standards within the sector. The MQA will, therefore, continue its progress regarding OHS skills capacity and training in the industry, through these programmes. |

## Artisan Development

| FIELD/<br>DISCIPLINE               | OCCUPATION                     | APP<br>LINKAGE | MQA<br>PROJECT<br>NUMBER |                                      |                                                                                                                                                                                           |
|------------------------------------|--------------------------------|----------------|--------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plater Welder                      | Plater Welder                  | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  | Support transformation of the sector through skills development                                                                                                                           |
| Rigger                             | Rigger                         | 3.7a & b       | A013                     | Links to the SSP PIVOTAL SKILLS LIST | The MQA is currently contributing to 3 Strategic Infrastructure Projects (SIPs) linked to the National Development Plan - which have a direct bearing on the MMS. (SIP1, SIP 4 and SIP 5) |
| Fitter and Turner                  | Fitter and Turner              | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Fitter (including machining)       | Fitter                         | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Automotive Motor Mechanic          | Automotive Motor Mechanic      | 3.7a & b       | A013                     | Links to the SSP PIVOTAL SKILLS LIST |                                                                                                                                                                                           |
| Diesel Mechanic                    | Diesel Mechanic                | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Heavy Equipment Mechanic           | Heavy Equipment Mechanic       | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Watch and Clock Maker and Repairer | Watch and Clock Maker Repairer | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Goldsmith                          | Goldsmith                      | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Diamond and Gemstone Setter        | Diamond and Gemstone Setter    | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Electrician                        | Electrician                    | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Millwright                         | Millwright                     | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Instrumentation Mechanician        | Instrumentation Mechanician    | 3.7a & b       | A013                     | Links to the SSP PIVOTAL SKILLS LIST |                                                                                                                                                                                           |
| Diamond Cutter                     | Diamond Cutter                 | 3.7a & b       | A013                     | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |



## RPL/Artisan Aides

| FIELD/DISCIPLINE                                                  | OCCUPATION                                                              | APP LINKAGE | MQA PROJECT NUMBER |                                      |                                                                                                                                                                                           |
|-------------------------------------------------------------------|-------------------------------------------------------------------------|-------------|--------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering Maintenance and Repairing for Underground Coal Mining | Aide: Engineering Maintenance and Repairing for Underground Coal Mining | 3.7c        | A014               | Links to the SSP Scarce Skills List  | Support transformation of the sector through skills development                                                                                                                           |
| Engineering Maintenance: Underground Hard Rock (Metalliferous)    | Aide: Engineering Maintenance: Underground Hard Rock (Metalliferous)    | 3.7c        | A014               | Links to the SSP Scarce Skills List  | The MQA is currently contributing to 3 Strategic Infrastructure Projects (SIPs) linked to the National Development Plan - which have a direct bearing on the MMS. (SIP1, SIP 4 and SIP 5) |
| Engineering Fabrication: Mining and Minerals                      | Aide: Engineering Fabrication: Mining and Minerals                      | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Electro-Mechanics: Mining and Minerals                            | Aide: Electro-Mechanics: Mining and Minerals                            | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Mechanical Engineering: Fitting: Mining and Minerals              | Aide: Mechanical Engineering: Fitting: Mining and Minerals              | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Mechanical Handling: Rigging: Mining and Minerals                 | Aide: Mechanical Handling: Rigging: Mining and Minerals                 | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Electrical Engineering: Mining and Minerals                       | Aide: Electrical Engineering: Mining and Minerals                       | 3.7c        | A014               | Links to the SSP PIVOTAL SKILLS LIST |                                                                                                                                                                                           |
| Measurement, Control and Instrumentation: Mining and Minerals     | Aide: Measurement, Control and Instrumentation: Mining and Minerals     | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |
| Automotive Repair and Maintenance: Mining and Minerals            | Aide: Automotive Repair and Maintenance: Mining and Minerals            | 3.7c        | A014               | Links to the SSP Scarce Skills List  |                                                                                                                                                                                           |

## Skills Programmes

| FIELD/DISCIPLINE                        | OCCUPATION                                          | APP LINKAGE | MQA PROJECT NUMBER                  |                                                                                                                                                                                                                                                                                                                                                                   |  |
|-----------------------------------------|-----------------------------------------------------|-------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Fitting including Machinery             | Fitter                                              | A022        | Links to the SSP Scarce Skills List | Core mining skills must continue to be developed through skills programmes.                                                                                                                                                                                                                                                                                       |  |
| Diesel Mechanic                         | Diesel Mechanic                                     | A022        | Links to the SSP Scarce Skills List | In order to ensure a sufficient pool of skills for the sector in the long-term, it is important that the MQA continues to support and fund programmes which are core to the sector. These should include core contextualized and regularized short skills programmes. This will also involve improved monitoring and evaluation of training delivery and quality. |  |
| Plater Welder                           | Plater Welder                                       | A022        | Links to the SSP Scarce Skills List |                                                                                                                                                                                                                                                                                                                                                                   |  |
| Measurement Control and Instrumentation | Controller: Measurement Control and Instrumentation | A022        | Links to the SSP Scarce Skills List |                                                                                                                                                                                                                                                                                                                                                                   |  |
| Rigger Ropesman                         | Rigger Ropesman                                     | A022        | Links to the SSP PIVOTAL SKILLS     |                                                                                                                                                                                                                                                                                                                                                                   |  |



| FIELD/DISCIPLINE | OCCUPATION  | APP<br>LINKAGE | MQA<br>PROJECT<br>NUMBER                    |
|------------------|-------------|----------------|---------------------------------------------|
| Electrical       | Electrician |                | A022 Links to the SSP<br>Scarce Skills List |
|                  |             |                | A022 Links to the SSP<br>Scarce Skills List |

## Work Experience

| FIELD/DISCIPLINE          | OCCUPATION            | APP<br>LINKAGE | MQA<br>PROJECT<br>NUMBER     |
|---------------------------|-----------------------|----------------|------------------------------|
| Mechanical Engineering    | Mechanical Engineer   | 3.11a and b    | A003 Skills Priority Actions |
| Chemical Engineering      | Chemical Engineer     | 3.11a and b    | A003                         |
| Electrical Engineering    | Electrical Engineer   | 3.11a and b    | A003                         |
| Environmental Studies     | Environmental Manager | 3.11a and b    | A003                         |
| Analytical Chemistry      | Analytical Chemist    | 3.11a and b    | A003                         |
| Industrial Engineering    | Industrial Engineer   | 3.11a and b    | A003                         |
| Geology                   | Geologist             | 3.11a and b    | A003                         |
| Mining Engineering        | Mining Engineer       | 3.11a and b    | A003                         |
| Metallurgical Engineering | Metallurgist          | 3.11a and b    | A003                         |
| Mineral Surveying         | Mineral Surveyor      | 3.11a and b    | A003                         |



## Internships

| FIELD/DISCIPLINE                        | OCCUPATION              | APP LINKAGE | MQA PROJECT NUMBER |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------|-------------------------|-------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analytical Chemistry                    | Analytical Chemist      | 3.13a and b | A006               | Through the placement of Higher Education graduates the internship programme allows for the development of technical skills for sustainability of the sector, as well as the development of core mining skills for the various disciplines. The internships programme prepares unemployed graduates over a two year period for work readiness in the occupations outlined by providing work exposure as well as learning interventions. The structured work exposure offered at employers also assists with providing necessary training in health and safety matters which contributes then to improving health and safety standards. The work exposure offers graduates the opportunity to participate and learn the requirements for new technology employed at companies. In addition the internship programme offers HDSAs the opportunity for work experience thus making them eligible for employment, this intervention hence supports transformation of the sector through skills development. Furthermore, by offering work exposure to graduates in the fields of mining engineering and survey the internships programme is contributing to the filling of hard to fill occupations within the mining and minerals sector |
| Chemical Engineering                    | Chemical Engineer       | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Jewellery Design and Creative Jewellery | Goldsmith               | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Electrical Engineering                  | Electrical Engineer     | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Environmental Science                   | Environmental Scientist | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Extraction Metallurgy                   | Extraction Metallurgist | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Geology                                 | Geologist               | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Industrial Engineering                  | Industrial Engineer     | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Metallurgy                              | Metallurgist            | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mine Engineering                        | Mine Engineer           | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mine Survey                             | Mine Surveyor           | 3.13a and b | A006               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## HET Lecturer Support

| FIELD/DISCIPLINE     | OCCUPATION | APP LINKAGE | MQA PROJECT NUMBER |                                                                                                                                                                          |
|----------------------|------------|-------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HET Lecturer Support | Lecturers  | 3.5a and b  | A001               | The MQA supports the development of HDSAs as lecturers at universities, this intervention is aimed at supporting transformation of the sector through skills development |

## TVET College Support: Lecturers

| FIELD/DISCIPLINE                | OCCUPATION | APP LINKAGE     | MQA PROJECT NUMBER |                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|------------|-----------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TVET College Support: Lecturers | Lecturers  | 3.6 MQA Project |                    | The aim of offering TVET lecturers work exposure at mines is to ensure quality improvements in lecturing at the colleges, which would then lead towards HDSAs learners receiving quality education, in turn these learners would be available for employment opportunities within the mining and minerals sector thus contributing to transformation of the sector. |



## TVET College Support: Learners

| FIELD/DISCIPLINE             | OCCUPATION                  | APP LINKAGE  | MQA PROJECT NUMBER |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------|-----------------------------|--------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Welder                       | Welder                      | 3.12a and b  | A015               | The MQA TVET College support programme offers NCV graduates the opportunity to become qualified artisans for absorption into the mining and minerals sector as well as other industries in the country. The on-the job learning offered at mines allows for the development of skills that would ensure sustainability of the sector through improved health and safety standards being implemented as well as productivity requirements being met through skills development. Many of the youth graduating on the TVET College NCV Programme are HDSAs, these youth then qualify as artisans and are placed in a pool for employment opportunities, thus leading towards a transformed sector. Through the artisan development programme youth are offered training on the new technology available at mines thus keeping them abreast of new and updated employer requirements in order to attain job success. |
| Rigger                       | Rigger                      | 3.12 a and b | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Fitter and Turner            | Fitter and Turner           | 3.12a and b  | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Fitter (including machining) | Fitter                      | 3.12a and b  | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Diesel Mechanic              | Diesel Mechanic             | 3.12a and b  | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Electrician                  | Electrician                 | 3.12a and b  | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Instrumentation Mechanician  | Instrumentation Mechanician | 3.12a and b  | A015               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Maths and Science

| FIELD/DISCIPLINE                                     | OCCUPATION | APP LINKAGE | MQA PROJECT NUMBER |                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------|------------|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support of Maths and Science at Grades 10, 11 and 12 | N/A        | 3.18        | A016               | HDSA youth are targeting for further education in maths and science in order for them to pass well at the Grade 10, 11 and 12 levels in schools, the intention are for the students to then seek careers within the mining and minerals sector and thus leading towards the support of the transformation of the sector through skills development. |

## Workplace Coach Development

| FIELD/DISCIPLINE            | OCCUPATION | APP LINKAGE | MQA PROJECT NUMBER |                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|------------|-------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Workplace Coach Development | Coaches    | 3.17        | A020               | The workplace coach programme is intended to assist employers to ensure that learners are provided with appropriate and correct skills for occupations. The programme then provides for learners being developed in core, technical and health and safety skills, contributing to a sustained mining and minerals sector. |

## Management Development

| FIELD/DISCIPLINE                                      | OCCUPATION                            | APP<br>LINKAGE | MQA<br>PROJECT<br>NUMBER |                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------|---------------------------------------|----------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Management Certificate, Diploma and Degree Programmes | Mine Manager/ Supervisor/ Team Leader | 3.2 a and b    | A022                     | The MQA supports employees with the development of management skills which supports the priorities of development skills for sustainability of the sector, Core mining skills and improving health and safety standards, meeting technology requirements and supporting transformation of the sector through skills development |



## Candidacy

| FIELD/<br>DISCIPLINE                    | OCCUPATION                              | APP LINKAGE | MQA<br>PROJECT<br>NUMBER |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|-----------------------------------------|-------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mechanical Engineering                  | Mechanical Engineer                     | 3.4 a and b | A041                     | The candidacy programme aims to place Higher Education graduates that have completed internship programmes to obtain a relevant government certificate of competence. In this programme the development of, technical skills as well as the development of core mining skills for the various disciplines are undertaken. The structured learning for the candidacy programme makes graduates ready for undertaking the examinations for the certificates of competence. Once they attain the certificate of competence HDSAs are available for senior roles within the sector. This intervention links with the priorities of supporting transformation of the sector as well as development of the sustainability of the sector and improving health and safety standards employed at mines. |
| Electrical Engineering                  | Electrical Engineer                     | 3.4 a and b | A041                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mineral Beneficiation (Smelting)        | Production                              | 3.15b       | A005                     | Links to the SSP Scarce Skills List The implementation of the strategy is expected to create and retain much needed jobs in the MMS. The MQA needs to maintain strong relationships with government departments involved in this, to understand its role in responding to any resulting skills needs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mineral Beneficiation (Hydrometallurgy) | Mineral Beneficiation (Hydrometallurgy) | 3.15b       | A005                     | Links to the SSP Scarce Skills List The implementation of the strategy is expected to create and retain much needed jobs in the MMS. The MQA needs to maintain strong relationships with government departments involved in this, to understand its role in responding to any resulting skills needs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Scraper Winch Operator                  | Scraper Winch Operator                  | 3.15b       | A005                     | Links to the Regulation Not linked to the SSP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ventilation Officer                     | Ventilation Officer                     | 3.15b       | A005                     | Links to the Regulation Not linked to the SSP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



| PROGRAMME 3 TARGETS                                                                                                                        | APP LINKAGE | MQA PROJECT NUMBER | SKILLS PRIORITY ACTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capacitate skills development facilitators and skills development committee members.                                                       | 2.1 & 2.2   | A008               | Develop Skills for Sustainability: To ensure better use of workplace based skills development within MMS. The SDFs and SDC are to be capacitated to enable them to plan skills development initiatives for the sector accordingly. This ties to the data sources, credibility and reliability of information reported through WSP-ATR as elaborated in section for WSP-ATR evaluations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Undertake 9 relevant research projects in skills development priorities within the MMS for the purpose of making informed decisions.       | 2.4         | Administration     | Develop Skills for Sustainability: The main change drivers currently impacting the MMS are: technology, together with Mining Phakisa. it is imperative for the MQA to understand and unpack the implications of these change drivers on skills development for the sector so as to understand the impact these has on skills planning to ensure that learners graduate with knowledge of and experience in the latest technology being used in the sector. The outlook of the MMS would be improved if the MQA monitors through research; the developments of Mining Phakisa, the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to increase economic activity and create new jobs. There is a growing need to protect the environment, with increased enforcement of legislation and consumer pressure driving the demand for eco-compliance within the MMS. Research to understand and unpack the skills requirements for the green economy within MMS is a necessity. All the above contribute to a credible institutional mechanism to skills planning. |
| Evaluate 660 Workplace Skills Plans (WSPs) and Annual Training Reports(ATR) for Small, Medium and Large Firms.to disburse mandatory grants | 2.3         | Mandatory Grants   | Develop Skills for Sustainability: The Research process and Methods section in the SSP highlights challenges in data sources and data sets. Of importance to note is the heavy reliance on WSP-ATR data received annually. Reliability and credibility of this data source is paramount to various chapters in the SSP and the overall understanding of the MMS profile. This including but not limited to Employer and Employee profiles, the skills initiatives and skills planning by the sector. Evaluation of WSP-ATR submissions is critical as a process to ensure data validity, credibility and consistency in reporting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Collaborate with 5 public institutions regarding skills development research in the Mining and Minerals Sector.                            | 2.5.        | Administration     | Develop Skills for Sustainability: partnerships with various public institutions for research has been highlighted and recommended in the SSP to compliment the work being done by MQA as well as having a collaborated approach in research within MMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Youth Development

| FIELD/DISCIPLINE                                                    | OCCUPATION   | APP LINKAGE | MQA PROJECT NUMBER | SSP 2015-2016 TOP 10 PIVOTAL SKILLS LIST/ SCARCE SKILLS LIST |
|---------------------------------------------------------------------|--------------|-------------|--------------------|--------------------------------------------------------------|
| Entrepreneurship of Small Medium Enterprise Development for the MMS | Entrepreneur | N/A         | A021               | Links to the SSP Scarce Skills List                          |

## ANNEXURE 1: PROGRAMME SPECIFIC DESCRIPTION

| MQA SKILLS INTERVENTIONS                                                         | OBJECTIVE OF SKILLS INTERVENTIONS                                                                                                                                                                                      | ALIGNMENT TO NSDS3                                                                                                                                                                                                                        | OTHER NATIONAL AND SECTORAL INITIATIVES SUPPORTED                                                                                                        | DHET's PERFORMANCE REQUIREMENTS (QMR)                                                                            |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|                                                                                  |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                           | NB: All skills development initiatives                                                                                                                   |                                                                                                                  |
| Standards Setting for HET and TVET programmes                                    | Developed Occupational Qualifications, Standards and Programmes in accordance with the MMS                                                                                                                             | Quality provisioning of skills                                                                                                                                                                                                            | Support of Governments MTSF<br>Objectives: Strengthen the Skills and carter for human resources base                                                     | To be added onto QMR Template of the DHET)<br>Other Support                                                      |
| Career and Pathway Guidance Project                                              | Participate in establishing partnerships and assisting employees in the sector with information on career path progression as well as career guidance. Career guidance to be provided to employed and unemployed youth | Building career and vocational guidance                                                                                                                                                                                                   | National Career guidance Framework                                                                                                                       | To be added onto QMR Template of the DHET)<br>Other Support                                                      |
| Mathematics and Science Project                                                  | To support Grades 10, 11 and 12 Maths & Science learners to achieve good maths and science results in order for them to seek careers with in the MMS                                                                   | Addressing the low level of youth and adult numeracy skills to enable additional training                                                                                                                                                 | Contribution to Presidential Outcomes for Minster of Higher Education and Training: Output 2: Increase access to programmes leading to intermediate- and | To be added onto QMR Template of the DHET)<br>- Rural Schools<br>- Mining Community Schools                      |
| AET Grant                                                                        | To facilitate and support the registration of learners of AET programmes to progressively increase levels of literacy in the MMS                                                                                       | Addressing the low level of youth and adult language and numeracy skills to enable additional training                                                                                                                                    | Contribution to Presidential Outcomes for the Minster of Higher Education and Training: Output 2: Increase access to programmes                          | (To be added onto QMR Template of the DHET)<br>Basic and Foundation Learning (Entered and Certificated)<br>AET 1 |
| Skills Programmes for Occupational Health and safety Representatives Development | To train 40 000 OHS Representatives over five years as required by Mine Health & Safety Tripartite Leadership Summit.                                                                                                  | Encouraging better use of workplace-based skills development                                                                                                                                                                              | Support of Governments MTSF Objectives: Strengthen the skills and human resource base                                                                    | (To be added onto QMR Template of the DHET)<br>Intermediate Learning Employed (Registered and Certificated)      |
| TVET collaboration                                                               | Provide support to Public TVET Colleges which results in the effective implementation of skills development interventions required for the MMS.                                                                        | Promoting the growth of the public TVET college system that is responsive to sector, local, regional and national skills needs and priorities. (NSDSIII Goal) Partnerships between public training providers, between providers and SETAs | Broad-based Socio-Economic National Skills Accord                                                                                                        | To be reported within the relevant programmes                                                                    |



| MQA SKILLS INTERVENTIONS                                                | OBJECTIVE OF SKILLS INTERVENTIONS                                                                                                                         | ALIGNMENT TO NSDS3                                                                                                             | OTHER NATIONAL AND SECTORAL INITIATIVES SUPPORTED                                                                                                                                                                                                                                                                                                              | DHET's PERFORMANCE REQUIREMENTS (QMR)                                                                                                                                                            |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         |                                                                                                                                                           |                                                                                                                                | NB: All skills development initiatives                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                  |
| Artisan development                                                     | To facilitate the development of scarce artisan occupational skills in the MMS.                                                                           | NSDS Outcomes 4.2.2: 10 000 artisans per year qualify with relevant skills and find employment.                                | National Skills Accord<br>Supports of Governments<br>MTSF Objectives:<br>Speeding up growth and transforming the economy to create decent work and sustainable livelihoods.<br>Broad-based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry<br>Contribution to Presidential Outcomes for Minister of Higher Education and | Artisans Learnerships<br>Unemployment Entered<br>Artisans Learnerships<br>Unemployed Certificated<br>Artisans Learnerships<br>Employed Entered<br>Artisans Learnerships<br>Employed Certificated |
| Bursaries                                                               | To create a pool of HET graduates to pursue careers within the Mining and Mineral Sector                                                                  | NSDS Outcome 4.2.3: High level national scarce skills needs are being addressed by work-ready graduates                        | Contribution to Presidential Outcomes for Minister of Higher Education and                                                                                                                                                                                                                                                                                     | Bursaries Unemployed<br>Registered<br>Bursaries Unemployed                                                                                                                                       |
| Work experience                                                         | To support HET students with relevant work experience to pursue careers within the Mining and Mineral Sector                                              | NSDS Outcome 4.2.3: High level national scarce skills needs are being addressed by work-ready graduates                        | Contribution to Presidential Outcomes for Minister of Higher Education and Training: Output 4: Increase access to                                                                                                                                                                                                                                              | To be added onto QMR Template of the DHET)<br>Learners in Critical Skills provided with Workplace experience (placed).                                                                           |
| Internships                                                             | To provide structured work experience to young unemployed graduates from HET/TVET institutions to complement qualifications in the scarce and/or critical | NSDS Outcome 4.2.3: High level national scarce skills needs are being addressed by work-ready graduates from higher education. | Contribution to Presidential Outcomes directly or indirectly<br>Minister of Higher Education and Training: Output 4: Increase access to high-level occupationally directed IPAP2                                                                                                                                                                               | Internships<br>Unemployed<br>Entered<br>Internships<br>Unemployed                                                                                                                                |
| Minerals Beneficiation (diamond processing and jewellery manufacturing) | Facilitate and support skills development activities for diamond and jewellery manufacturing subsectors                                                   | Encouraging better use of workplace-based skills development                                                                   | New Growth Path                                                                                                                                                                                                                                                                                                                                                | Learnerships<br>Unemployed<br>Entered<br>Learnerships<br>Unemployed                                                                                                                              |
| International Literacy Day Support                                      | To support the annual International Literacy week with events and activities that will demonstrate the MQA commitment to the                              | Addressing the low level of youth and adult language and numeracy skills to enable additional training                         | Broad-based Socio-Economic Contribution to Presidential Outcomes for Minister of Higher Education and Training                                                                                                                                                                                                                                                 | To be added onto QMR Template of the DHET)<br>Other Support                                                                                                                                      |

| MQA SKILLS INTERVENTIONS                         | OBJECTIVE OF SKILLS INTERVENTIONS                                                                                              | ALIGNMENT TO NSDS3                                                                                     | OTHER NATIONAL AND SECTORAL INITIATIVES SUPPORTED                                                                                                                                                                                                                                                                                                   | DHET's PERFORMANCE REQUIREMENTS (QMR)                                                                                  |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                                                                                                                |                                                                                                        | NB: All skills development initiatives                                                                                                                                                                                                                                                                                                              |                                                                                                                        |
| Foundational Learning Competency Grant Incentive | To facilitate and support the enrolment of learners on FLC training to progressively increase levels of literacy in the Sector | Addressing the low level of youth and adult language and numeracy skills to enable additional training | Broad-based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry<br>Contribution to Presidential Outcome for Minister of Higher Education and Training                                                                                                                                                             | To be added onto QMR Template of the DHET)<br>Foundational<br>Employed<br>Registered                                   |
| Development of learning materials                | To develop learning packs, learning materials for TVET and HET programmes to be used by industry providers.                    | Quality provisioning of skills development                                                             | NB: All skills development initiatives support of Government Objectives: Strengthen the skills and human resource base                                                                                                                                                                                                                              | To be added onto QMR Template of the DHET)<br>Other Support                                                            |
| Non-artisan Learnerships                         | To support learners on core Learnerships (Non-artisan) for the MMS.                                                            | Encouraging better use of workplace-based skills development                                           | Broad-based Socio-Economic Empowerment Charter for the South African Mining and minerals industry<br>New Growth Path<br>Support of Governments MTSF<br>Objectives: Speeding up growth and transforming the economy to create decent work and sustainable livelihoods.<br>Contribution to Presidential Outcomes for Minister of Higher Education and | Learnerships<br>Unemployed<br>Entered<br>Learnership<br>Unemployed<br>Certificated<br>Learnerships Employed<br>Entered |





## Part C:

### Links to other plans

## 5. Links to long-term infrastructure and other capitals

### 5.1 MQA ACCREDITED TRAINING PROVIDERS AND PROGRAMME APPROVALS

ACCREDITATION STATUS AS AT 30 JULY 2016

|                                                         |     |
|---------------------------------------------------------|-----|
| 1. WORKPLACE APPROVALS                                  | 300 |
| 2. ACCREDITED AND PROGRAMME APPROVAL TRAINING PROVIDERS | 196 |

| STATUS        |                            | PROV A | FA  | PA | SE | LA |
|---------------|----------------------------|--------|-----|----|----|----|
| MINING        | UNDERGROUND HARD ROCK (40) | 1      | 38  |    | 1  |    |
|               | UNDERGROUND COAL (10)      |        | 7   | 1  | 2  |    |
|               | SURFACE (23)               | 1      | 20  | 2  |    |    |
|               | SKILLS PROGRAMMES (210)    | 9      | 154 | 32 | 15 | 1  |
| BENEFICIATION | JEWELLERY (15)             |        | 12  | 3  |    |    |
|               | DIAMOND (4)                |        | 4   |    |    |    |
|               | SMALL SCALE (2)            |        | 2   |    |    | 1  |
|               | MINERAL EXCAVATION (19)    |        | 18  |    | 1  |    |
| TOTAL         |                            | 11     | 255 | 38 | 19 | 2  |

#### NOTES:

|        |                      |
|--------|----------------------|
| Prov A | Provisional Approval |
| FA     | Full Accreditation   |
| PA     | Programme Approval   |
| SE     | Site Extension       |

## 6. Conditional grants

Not applicable. The MQA is a Schedule 3(a) public entity.

## 7. Public entities

Not applicable. The MQA is a Schedule 3(a) public entity.

## 8. Public – private partnerships

### 8.1 Collaboration plans with SA public TVET Colleges

# TABEL OF CONTENTS

|    |                                  |     |
|----|----------------------------------|-----|
| 1. | Acronyms                         | 163 |
| 2. | Preamble                         | 164 |
| 3. | Introduction                     | 165 |
| 4. | Profile of TVET Colleges         | 165 |
| 5. | Challenges                       | 167 |
| 6. | Strategic Intent                 | 167 |
| 7. | MQA's Approach and Interventions | 168 |
| 8. | Implementation Plan              | 168 |
| 9. | Conclusion                       | 168 |



## 8.1.1 ACRONYMS

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| <b>CEO</b>     | Chief Executive Officer                                                      |
| <b>CSTO</b>    | Coordinating SETA-TVET College Offices                                       |
| <b>DHET</b>    | Department of Higher Education and Training                                  |
| <b>TVET</b>    | Further Education and Training                                               |
| <b>CSTO</b>    | Coordinating SETA-TVET Office                                                |
| <b>HRDC</b>    | Human Resources Development Council                                          |
| <b>ILO</b>     | International Labour Organisation                                            |
| <b>M&amp;E</b> | Monitoring and Evaluation                                                    |
| <b>MOU</b>     | Memorandum of Understanding                                                  |
| <b>NCOP</b>    | National Council of Provinces                                                |
| <b>NC(V)</b>   | National Certificate (Vocational)                                            |
| <b>NQF</b>     | National Qualifications Framework                                            |
| <b>NSDS</b>    | National Skills Development Strategy                                         |
| <b>PSDF</b>    | Provincial Skills Development Forum                                          |
| <b>SAIVCET</b> | South African Institute for Vocational and Continuing Education and Training |
| <b>SETAs</b>   | Sector Education and Training Authorities                                    |
| <b>SLO</b>     | Skills/SETA Liaison Officer                                                  |
| <b>SSPs</b>    | Sector Skills Plans                                                          |
| <b>TREE</b>    | Training for Rural Economic Empowerment                                      |
| <b>TVET</b>    | Technical and Vocational Education and Training                              |
| <b>VCET</b>    | Vocational and Continuing Education and Training                             |
| <b>WBE</b>     | Work-based Experience                                                        |
| <b>WIL</b>     | Work-integrated Learning                                                     |



## 8.1.2 PREAMBLE

The National Skills Development Strategy (NSDS) III makes specific reference to the need for SETAs to form partnerships with TVET colleges, and support colleges to be providers of choice. There are moves underway within the DHET to create an enabling mechanism for such partnerships to operate and skills levy money will be earmarked to ensure this happens. However, the skills development sub-system must be able to rely on the ability of the college sub-system to deliver, both in terms of quality and quantity.

Part of the responsibility rests on the SETAs to achieve goals 4.2 and 4.3 of the NSDS III, outlined below:

4.2 Increasing access to occupationally-directed programmes through work experience

4.3 Promoting the growth of a public TVET college system that is responsive to sector, regional and national skills needs and priorities

**NSDS Outcome 4.3.1: The National Certificate (Vocational) and N-courses are recognised by employers as important base qualifications through which young people are obtaining additional vocational skills and work experience, entering the labour market with marketable skills, and obtaining employment**

**NSDS Outcome 4.3.2: Partnerships between DHET, SETAs, employers, private providers and public TVET colleges are resulting in increased capacity to meet industry needs throughout the country**

Output 4.3.2.2: SETAs identify TVET colleges with relevant programmes and put in place partnerships to offer vocational courses and work experience for college learners

This calls for a coordinated approach for collaboration to provide the SETAs with a platform for partnerships to:

- Identify relevant programmes and establish the necessary partnerships with all stakeholders (namely SETA's, TVET Executives, Employers, Provincial Government and Communities) to offer career guidance, vocational courses and bursaries for TVET learners;
- Facilitate collaboration and processes to enable the following:
  - o Collaboration between colleges and industry;
  - o Support for development of Assessors and Moderators;
  - o Support for learner guidance in scarce and critical skills required by each sector through career exhibitions; and
  - o Support for learner with bursaries for identified programmes.
- Establish a workplace for the provincial SETA collaboration to function from i.e. co-ordinate activities and disseminate Information regarding initiatives and projects in the province;
- Develop lecturer capacity (linking to a skills programme/qualification) to deliver programmes necessary for economy of provinces;
- Establish strategic partnerships for delivery inclusive of local government and the business sector;
- Develop articulated professional qualifications pathways between TVET Colleges and universities in the provinces;
- Ensure existing facilities and infrastructure are well-utilised and of a standard to ensure that the project is implemented effectively;
- Include rural communities in planning and delivery;
- Conduct monitoring and evaluation activities to determine the impact of projects and the collaboration agreement within the provinces



- Accelerating the accreditation/programme approval of the TVET colleges to be the preferred sites skills development in province; and
- Implementing programmes to strengthen the college management and administration.

### 8.1.3 INTRODUCTION

The National Skills Development Strategy (NSDS) III emphasises the role of TVET Colleges as centres for skills development, as well as the need for partnerships with other role players in the sector.

In an effort to foster collaboration between the public TVET colleges and the SETAs, the Department of Higher Education and Training (DHET) initiated a process of clustering SETAs in a province, with one SETA nominated to lead the cluster. To this end the DHET communicated to the SETA to:

- I. Prioritise office presence at TVET Colleges at campuses which are in rural areas and/or in townships. Certain colleges are prioritised for the first phase of this initiative and the intention is that all colleges will have SETA presence in due course.
- II. Operate in all provinces as a cluster with a Lead SETA given the mandate to establish these offices at colleges.  
The Lead SETA has been linked to a cluster of supporting SETAs to ensure a spread across the country (the intention is that each TVET College must have a Lead SETA with a cluster of supporting SETAs).

**NB:** The Cluster of SETAs does not limit your engagement with other SETAs who are not in the cluster.

- III. Immediately interface with the colleges where the TVET offices are secured for the hosting of the SETAs, to determine what financial and other support can be given for the delivery of programmes in this financial year and of course for the planning processes of colleges for 2013 and beyond.
- IV. The SETAs will also have other objectives which they may wish the college to participate in achieving; these however will be on a college to college basis.
- V. The DHET emphasised, in a letter to both SETAs and TVET colleges that “This initiative is a forerunner of a full collaboration process which will begin to roll out later this financial year (2012/13)”.

In the same correspondence the TVET colleges were also advised to provide a reasonable amount of office space at no rental cost, because the SETAs will be an onsite resource to assist with additional funding and other resources to implement the NSDS III (and other skills delivery policy imperatives) via your college in line with your operational plans. Key support would be (but not limited to):

- Placement of learners for work and exposure to work;
- Development of lecturers (workplace experience, etc.);
- Expanding learnership and skills programmes;
- Expanding Artisan Development Programmes; and
- Expanding NCV and Report 191 programmes



While all the SETAs are supporting this national DHET projects, there has been some work done by the MQA in support of the TVET colleges where its regional offices are housed. Some of the initiatives undertaken by the MQA in the past financial year includes, but not limited to, the following:

- Placement of Report 191 and NCV learners for work and exposure to work;
- Development of lecturers in work environments; and
- Assisting with program approval with the ETQA business unit of the MQA.

#### 8.1.4 PROFILE OF TVET COLLEGES

As of December 2010, there were 603 managers, 7 957 lecturing staff and 6 048 support staff in the 50 public TVET Colleges, with 232 campuses or learning sites public TVET colleges in South Africa, as can be seen in the table below.

(2011 ETDP SETA TVET SSP). This is an outcome of a rationalisation process which started around 1998, only to be completed in 2003, where 152 technical colleges were merged and right-sized, resulting in the current TVET landscape.

#### South African Public TVET Colleges per Province

| PROVINCE      | NAMES OF TVET COLLEGES                                                                                                                                                                                                                                                                     | TOTAL NUMBER |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| North West    | Taletso TVET College<br>Vuselela TVET College<br>Orbit TVET College                                                                                                                                                                                                                        | 3            |
| Gauteng       | Tshwane South Public TVET College<br>Tshwane North College For TVET<br>Ekurhuleni West Public TVET College<br>Ekurhuleni East Public TVET College<br>South West Gauteng College<br>Central Johannesburg Public TVET College<br>Western Public TVET College<br>Sedibeng Public TVET College | 8            |
| Limpopo       | Lephalale TVET College<br>Capricorn TVET College<br>Waterberg TVET College<br>Vhembe TVET College<br>Mopani South East TVET College<br>Letaba TVET College<br>Sekhukhune TVET College                                                                                                      | 7            |
| Mpumalanga    | Ehlanzeni Public TVET College<br>Nkangala Public TVET College<br>Gert Sibande Public TVET College                                                                                                                                                                                          | 3            |
| Kwazulu-Natal | Mthashana TVET College<br>Umfolosi TVET College Majuba<br>TVET College Mnambithi TVET<br>College Elangeni College for<br>TVET Coastal KZN FET<br>College Thekwini TVET College<br>Umgungundlovu TVET College<br>Esayidi TVET College                                                       | 9            |
| Eastern Cape  | Port Elizabeth Public TVET College<br>Eastcape Midlands Public TVET College<br>Buffalo City Public TVET College<br>Lovedale Public TVET College<br>King Sabatadalindyabo Public TVET College<br>Ingwe Public TVET College<br>Ikhala Public TVET College<br>King Hintsa Public TVET College | 8            |
| Free State    | Goldfields TVET College<br>Motheo TVET College<br>Maluti TVET College<br>Flavius Mareka TVET College                                                                                                                                                                                       | 4            |
| Northern Cape | Urban Public TVET College<br>Rural Public TVET College                                                                                                                                                                                                                                     | 2            |
| Western Cape  | West Coast Public TVET College<br>Boland Public TVET College<br>South Cape Public TVET College<br>Northlink College<br>College of Cape Town<br>False Bay Public TVET College                                                                                                               | 6            |
|               |                                                                                                                                                                                                                                                                                            | 50           |

Source: (www.skillsportal.co.za, 2007)



## 8.1.5 CHALLENGES

The general challenges by all Public TVET Colleges in the country are summarised as follows:

- 5.1. Lack of adequate funding for students' tuition, books, accommodation and personal allowances;
- 5.2. Lack of favourable recruitment of NCV graduates upon completion of their studies;
- 5.3. Lack of favourable recruitment of Report 191 graduates upon completion of their studies;
- 5.4. Poor placement of graduates for workplace experience in industry;
- 5.5. Industry- inexperienced lecturers;
- 5.6. Industry-unconnected curriculum;
- 5.7. Poor management and adherence to corporate governance issues;
- 5.8. Outdated workshop equipment; and
- 5.9. Poor college infrastructure, including libraries and resource centres.

## 8.1.6 STRATEGIC INTENT

The MQA Regional offices were tasked with the responsibility of developing a report detailing the gaps that had been identified within the TVET Colleges in all the regions the MQA has regional offices in.

As a result of the directive, an abridged and consolidated report takes into account, inter alia, the following areas where the gaps had been identified, with the intent of exploring the possibility of offering aid to TVET Colleges:

- I. Workshops;
- II. Management Issues;
- III. Financial Stability;
- IV. Curriculum; and
- V. Others.

| GAP AREA            | STATUS REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Workshops           | The equipment and machinery used for skills development in the TVET Colleges' workshops are very old and some are unserviceable. They are not aligned to what the industry uses, and that poses a challenge in that the students carry out their practicals based on equipment they may never see again in the real life work environment.                                                                                                                                                  |
| Management Issues   | The signed MOU deliverables are not carried out by either the TVET Colleges or MQA, even though the drafted implementation plan clearly identified the action steps that needed to be taken.                                                                                                                                                                                                                                                                                                |
| Financial Stability | The TVET Colleges are relatively stable financially as most of its funding for the learners comes from the Department of Higher Education (DHET). The only challenge faced by the TVET Colleges in so far as finances are concerned is the late funding of students' studies through NSFAS bursaries by DHET, and this tends to fuel students uprisings in various campuses, especially during the beginning of each trimester or semester, creating huge uncertainties among the students. |
| Curriculum          | The curricula in both the Nated and the NCV programmes at the TVET Colleges are more or less aligned to the MQA and industry requirements, but very limited.                                                                                                                                                                                                                                                                                                                                |
| Other Gap Areas     | <ul style="list-style-type: none"><li>• The establishment of the Resource Centre (Library) on campus;</li><li>• The placements of the learners in the workplace; and</li><li>• The placements of lecturers in the workplace environment.</li></ul>                                                                                                                                                                                                                                          |



## 8.1.7 MQA'S APPROACH AND INTERVENTIONS

The MQA regional offices have proposed a Needs- Based Approach, informed by the needs analysis study they will conduct with each TVET College that the MQA will partner with. It needs to be mentioned that the MQA will not partner with all the afore-mentioned fifty (50) TVET Colleges as some of them do not offer mining related qualifications. Furthermore, the regional offices will also approach the employers in the region to bolster partnerships with the TVET Colleges, particularly in areas that require on-the-job work or practical experience.

To this end, the strategy that will be followed will be based on the following Skills Development Interventions, which are also enshrined in the NSDS III, depending on the needs of the TVET College engaged:

- 7.1. Bursaries;
- 7.2. Workshop for Council Members;
- 7.3. Maths and Science Tutors;
- 7.4. NCV Placement
- 7.5. Assessor and Moderator Training;
- 7.6. Lecturer Placement and Replacement;
- 7.7. Adoption of the SIPS project below a certain threshold (less than R50K);
- 7.8. Assistance with Accreditation and Programme Approval of TVET Colleges;
- 7.9. TVET College's Open Day Funding; and
- 7.10. Workshops for RPL Facilitator.

The MOU which will be entered into with the TVET Colleges will be based on three (3) to 5 above-mentioned Skills Development interventions, and so a one-size fits all approach will not be encouraged.

## 8.1.8 IMPLEMENTATION PLAN

As alluded to above, the MQA regional office will engage at least thirty (30) of the identified TVET Colleges in the country, with each of the 6 regional manager targeting no less than 5 TVET Colleges and concluding the Memorandum of Understanding by the end of August 2016.

The proposed plan will be implemented as follows by the end of August 2016:

| REGIONAL OFFICE             | TARGETED TVET COLLEGES                                                   |
|-----------------------------|--------------------------------------------------------------------------|
| Limpopo Regional Manager    | At least 5 of the 7 Limpopo TVET Colleges                                |
| Mpumalanga Regional Manager | At least 5 of the 12 Mpumalanga and Kwa- Zulu Natal TVET Colleges        |
| Free State Regional Manager | At least 5 of the 12 Free State and Gauteng TVET Colleges                |
| North West Regional Manager | At least 5 of the 11 North West and Gauteng TVET Colleges Northern Cape  |
| Regional Manager            | At least 5 of the 8 Northern Cape and Western Cape Eastern TVET Colleges |
| Cape Regional Manager       | At least 5 of the 8 Eastern Cape TVET Colleges                           |

### 8.1.9 CONCLUSION

All 30 signed MOUs would emanate from engagements with the TVET College CEO and would be based on the need of each college. No one-size -fits all approach would be followed in the development of these MOUs. These MOUs would be discussed with the Executive Manager: Stakeholder Relations before they are submitted to the MQA CEO for approval. The concerned regional manager would have to develop the financial implications with the relevant MQA business unit and the Executive Manager: Stakeholder Relations before the MOU is developed and signed by the MQA CEO.



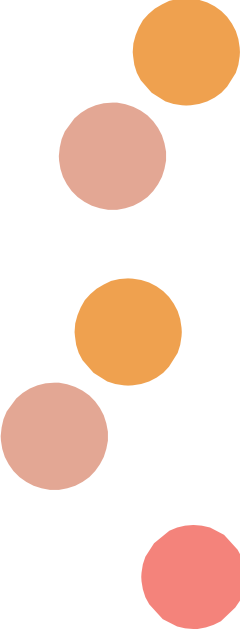
## 8.2 COLLABORATION PLANS WITH SA PUBLIC HET INSTITUTIONS

The MQA intends to initiate and establish partnerships and relations with the following South African Public HET institutions around identified learning programmes (forming part of the Intervention column within the Medium Term Strategic Framework period starting from 2012/13):

| NO  | NAME                                   | PROVINCE       | PROGRAMMES                                    | IDENTIFIED MQA INTERVENTION                                                                                                                                                                    |
|-----|----------------------------------------|----------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Nelson Mandela Metropolitan University | Eastern Cape   | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 2.  | Rhodes University                      | Eastern Cape   | Geology                                       | • Bursaries<br>• Lecturer Development                                                                                                                                                          |
| 3.  | University of Fort Hare                | Eastern Cape   | Geology                                       | • Bursaries<br>• Lecturer Development                                                                                                                                                          |
| 4.  | Walter Sisulu University of Technology | Eastern Cape   | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 5.  | Central University of Technology       | Free State     | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 6.  | University of the Free State           | Free State     | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 7.  | University of Pretoria                 | Gauteng        | Mining Engineering                            | • Bursaries<br>• Lecturer Development<br>• Learning Material Support (Rock Engineering)                                                                                                        |
| 8.  | University of South Africa             | Gauteng        | Electrical, Mechanical and Mining Engineering | • Learning Material Support (Rock Engineering)<br>• Bursaries<br>• Programme Development (Mine Survey)<br>• Lecturer Development                                                               |
| 9.  | Tshwane University of Technology       | Gauteng        | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 10. | University of the Witwatersrand        | Gauteng        | Mine Surveying and Mining Engineering         | • Learning Material Support (Rock Engineering)<br>• Bursaries<br>• Mine Inspector Development<br>• Possible Research                                                                           |
| 11. | Vaal University of Technology          | Gauteng        | Mining and Minerals Sector Related            | • Bursaries                                                                                                                                                                                    |
| 12. | University of Johannesburg             | Gauteng        | Mining Engineering                            | • Lecturer Development<br>• Learning Material Support (Rock Engineering)<br>• Bursaries<br>• Programme Development (Mine Survey)<br>• Possible Research<br>• Partnership<br>• Research Bursary |
| 13. | Durban University of Technology        | Kwa-Zulu Natal | Jewellery and Beneficiation related           | • Bursaries                                                                                                                                                                                    |



| NO  | NAME                                    | PROVINCE       | PROGRAMMES                                    | IDENTIFIED MQA INTERVENTION                                          |
|-----|-----------------------------------------|----------------|-----------------------------------------------|----------------------------------------------------------------------|
| 14. | University of KwaZulu Natal             | Kwa-Zulu Natal | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 15. | Mangosuthu Technikon                    | Kwa-Zulu Natal | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 16. | University of Zululand                  | Kwa-Zulu Natal | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 17. | University of Limpopo                   | Limpopo        | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 18. | University of Venda                     | Limpopo        | Mining & Environmental Programmes and Geology | • Lecturer Development                                               |
| 19. | North West University (Potchefstroom)   | North West     | Mining and Minerals Sector Related            | • Bursaries<br>• Possible Research Partnership<br>• Research Bursary |
| 20. | University of Stellenbosch              | Western Cape   | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 21. | University of the Western Cape          | Western Cape   | Mining and Minerals Sector Related            | • Bursaries                                                          |
| 22. | Cape Peninsula University of Technology | Western Cape   | Jewellery and Beneficiation related           | • Bursaries                                                          |



ANNEXURE D

MQA SECTOR

SKILLS PLAN UPDATE

2017 - 2018

FINAL REPORT: 31 AUGUST 2016

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# FOREWORD

The Mining Qualifications Authority (MQA) prides itself in ensuring that the Mining and Mineral Sector (MMS) remains at the cutting edge of skills development. In keeping up with this progression, this Board submits to the Department of Higher Education and Training (DHET) the First Draft Sector Skills Plan (SSP) update for the Mining and Minerals Sector for the period 2017-18.

The Sector Skills Plan has been prepared in accordance with the National Skills Development Strategy (NSDS) III, in accordance with the expectations of the DHET. This SSP has been presented to the Skills Research and Planning Committee. The improvement of the skills of our workforce is imperative for the economic development of our sector, for the improvement of our health and safety record and for the growth and wellbeing of all employees. The main purpose of this SSP annual update is to guide and inform skills development initiatives in the sector. It is the result of not only a thorough research process, but also of extensive data triangulation from primary and secondary data sources. The MQA scheduled stakeholder consultative sessions between June 2015 and May 2016. Through stakeholder engagements, the stakeholders take ownership of this plan and now all stakeholders are urged to work together to address the skills development priorities and to achieve the goals and objectives set in this SSP.

**Mr Mthokozisi Zondi**

Chairperson: MQA Board

# ACRONYMS

|        |                                                                |         |                                                         |
|--------|----------------------------------------------------------------|---------|---------------------------------------------------------|
| AET    | Adult Education and Training                                   | GCC     | Government Certificate of Competency                    |
| AIDS   | Acquired Immune Deficiency Syndrome                            | GDP     | Gross Domestic Product                                  |
| APP    | Annual Performance Plan                                        | GET     | General Education and Training                          |
| ATR    | Annual Training Report                                         | GP      | Gauteng Province                                        |
| ABET   | Adult Basic Education and Training                             | GVA     | Gross Value Added                                       |
| BEE    | Black Economic Empowerment                                     | GWM&E   | Government- Wide Monitoring and Evaluation              |
| BER    | Bureau of Economic Research                                    | HDSA    | Historically Disadvantaged South African                |
| bn     | Billion                                                        | HET     | Higher Education and Training                           |
| CAD    | Computer-Aided Design                                          | HIV     | Human Immunodeficiency Virus                            |
| CETA   | Construction Education and Training Authority                  | HR      | Human Resources                                         |
| CHIETA | Chemical Industries Education and Training Authority           | HRDS-SA | Human Resources Development Strategy for South Africa   |
| CLAS   | Cement, Lime, Aggregates and Sand                              | IMF     | International Monetary Fund                             |
| ct     | Carat                                                          | INSETA  | Insurance Sector Education and Training Authority       |
| DHET   | Department of Higher Education and Training                    | IPAP    | Industrial Policy Action Plan                           |
| DMR    | Department of Mineral Resources                                | IRM     | Industrial Raw Materials                                |
| DoE    | Department of Energy                                           | KZN     | KwaZulu-Natal                                           |
| DST    | Department of Science and Technology                           | LDDEDAT | Limpopo Department for Economic Development and Tourism |
| EC     | Eastern Cape                                                   | LMI     | Labour Market Intelligence                              |
| ECSA   | Engineering Council of South Africa                            | LP      | Limpopo Province                                        |
| ESETA  | Energy Sector Education and Training Authority                 | M&E     | Monitoring and Evaluation                               |
| FASSET | Financial & Accounting Sector Education and Training Authority | MBAP    | Mineral Beneficiation Action Plan                       |
| FDI    | Foreign Direct Investment                                      | Mct     | Metric carat                                            |
| FET    | Further Education and Training                                 | MDP     | Management Development Programme                        |
| FS     | Free State                                                     | merSETA | Manufacturing, Engineering and Related Services SETA    |

|       |                                                     |          |                                                           |
|-------|-----------------------------------------------------|----------|-----------------------------------------------------------|
| MHS   | Mine Health and Safety                              | PIVOTAL  | Professional, Vocational, Technical and Academic Learning |
| MMS   | Mining and Minerals Sector                          | R&D      | Research and Development                                  |
| MP    | Mpumalanga Province                                 | RSSP     | Regional Sector Skills Plan                               |
| MPRDA | Minerals and Petroleum Resources Development Act    | SA       | South Africa                                              |
| MQA   | Mining Qualifications Authority                     | SAMDA    | South African Mining Development                          |
| Mt    | Metric ton                                          | SARB     | South Africa Reserve Bank                                 |
| MTSF  | Mid Term Strategic Framework                        | SDA      | Skills Development Act                                    |
| NC    | Northern Cape                                       | SDL      | Skills Development Levy                                   |
| NCV   | National Certificate Vocational                     | SERO     | Socio-Economic Review and Outlook                         |
| NDP   | National Development Plan                           | SETA     | Sector Education and Training Authority                   |
| NGP   | National Growth Path                                | SEZ      | Special Economic Zone                                     |
| NMBLP | Nelson Mandela Bay Logistics Park                   | SIC      | Standard Industrial Classification SIP                    |
| NQF   | National Qualifications Framework                   |          | Strategic Infrastructure Project                          |
| NRF   | National Research Fund                              | SMME     | Small, Medium and Micro Enterprise                        |
| NSA   | National Skills Accord                              | SOE      | State Owned Enterprise                                    |
| NSSP  | National Sector Skills Plan                         | SSP      | Sector Skills Plan                                        |
| NSDS  | National Skills Development Strategy                | Stats SA | Statistics South Africa                                   |
| NUM   | National Union of Mine Workers                      | TETA     | Transport Education and Training Authority                |
| NW    | North West                                          | TVET     | Technical and Vocational Education and Training           |
| OFO   | Organising Framework for Occupations                | UCS      | Underhill Corporate Solutions                             |
| OHS   | Occupational Health and Safety                      | UoT      | University of Technology                                  |
| PDP   | Provincial Development Plan                         | WC       | Western Cape                                              |
| PGMs  | Platinum Group Metals                               | WP-PSET  | White Paper - Post School Education and Training          |
| PGDP  | Provincial Gross Domestic Product                   | WSP      | Workplace Skills Plan                                     |
| PICC  | Presidential Infrastructure Coordinating Commission | YEA      | Youth Employment Accord                                   |



# EXECUTIVE SUMMARY

## 1. INTRODUCTION AND BACKGROUND

The Sector Education and Training Authority (SETA) for the Mining and Minerals Sector (MMS) and the Mining Qualifications Authority (MQA) prepared this Sector Skills Plan (SSP) Update in accordance with new guidelines of the Department of Higher Education and Training (DHET). The main purpose of this SSP is to inform and support skills development initiatives in the sector.

## 2. RESEARCH METHODOLOGY

The research methodology used for this SSP Update included both quantitative and qualitative research methods. Secondary (desktop) research was conducted on economic, social and development status and strategies. MQA Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) complemented these sources but also allowed for an analysis of the size and nature of the sector. Extensive national and regional stakeholder workshops and consultations were undertaken between June 2015 and May 2016 to enable triangulation of this data and provide deeper insight into change drivers, skills demand and supply, and skills gaps. Stakeholders included employers, labour unions and training providers, as well as representatives from the Department of Mineral Resources (DMR), the Chamber of Mines, the National Union of Mineworkers (NUM) and the Department of Higher Education and Training (DHET).

## 3. SECTOR PROFILE

The MMS is an important sector to South Africa but is currently facing challenges which include:

- Its contribution to GDP has been decreasing gradually, from 8.5% in 2009 to 7.6% in 2016.
- Declining global demand for mining commodities and retrenchments have led to a decrease in the number of people employed, from a peak of 628 750 in 2012 to 520 003 in 2016.
- However, the outlook of the MMS would be improved if the sector monitors the developments of Mining Phakisa and prepares existing and potential employees accordingly; and takes advantage of the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to increase economic activity and create new jobs.

Additionally, analysis of the MMS revealed the following:

- MMS employment is mainly concentrated in North West, Limpopo, Gauteng and Mpumalanga; together constituting 80.8% of total employment in the MMS.
- Mpumalanga, Gauteng, North West and Free State's employment numbers have been declining steadily, by 38.8%, 29.1%, 16% and 14.4% respectively between 2012 and 2016. The biggest growth has been seen in Northern Cape, whose employment numbers have been increasing steadily, by 40.5% in the same 5-year period.
- The PGM sector employs the most people in the MMS, with 33.4% of employment.
- Employment numbers in the CLAS, Coal, Diamond, Gold and Services Incidental to Mining sectors have overall all been on the decline since 2012.
- Although the sector is historically male-dominated, the proportion of females has been increasing gradually, from 11% in 2012 to 14.5% in 2016.
- In terms of management by equity, there has been an overall increase in management of Africans, Coloureds and Indians. These 3 race groups together constituted 37.7% of total management in 2012, to 42.65% in 2016. When breaking management levels down, Whites comprise 71.1% of top management, 64.9% of senior management, and 50% of mid management. Africans comprise the second highest in all 3 categories, the highest proportion (38%) being in mid management.



- The highest proportion of the sector's employees (47%) have achieved the equivalent of upper high school levels (Grades 10-12), followed by 22% of the sector with Grades 4-9.

#### 4. KEY SKILLS ISSUES

The key change drivers which are impacting the MMS are Technology (including Mining Phakisa developments); Declining global demand; Mining Charter and Employment equity; Occupational Health and Safety (OHS); and Mineral beneficiation. In particular, technology affects skills planning as learners need to graduate with knowledge of, and experience in the latest technology being used in the sector. Furthermore, the widespread downscaling of operations across the sector has led to large-scale retrenchment drives, resulting in the need to prioritise portable skills training. MQA also need to continue focusing on the transformational targets contained in the Mining Charter.

#### 5. EXTENT OF SKILLS MISMATCHES

Analysis of 2015-16 MQA WSP-ATR submissions and comments from extensive national and regional engagements over a 1-year period revealed the following:

- There are recruitment challenges where a few of the core mining occupations are concerned. The 10 most hard-to-fill occupations which need to be addressed by the MQA were found to be Mining Manager, Mining Planner, Mining Engineer, Rock Engineer, Surveyor, Rigger Ropesman, Diesel Mechanic, Boilermaker, Instrumentation Mechanician and Fitter. Stakeholders believe that the most concerning are Mining Manager, Rock Engineer, Diesel Mechanic and Rigger Ropesman. The occupation, Rock Engineering Manager, has one of the highest scarce intensity rates and may also need to be addressed.
- Main supply-side concerns were found to be as follows:
  - o Basic education: low Levels of Maths & Science; and insufficient access to career awareness.
  - o TVET College sector: Lack of practical training at colleges; and outdated curricula at colleges.
  - o HET sector: Lack of career awareness for Rock Engineering, a specialisation of Mining Engineering; and a probable over-supply of Geologists.
  - o Other (not specific to a level of education): Declining GCC achievement numbers for core MMS-related occupations; and lack of management skills.
- MQA funds numerous programmes aimed at addressing the supply of skills to the sector as well as transformational imperatives. These include practical training and experience; P1 and P2 training; graduate internships; bursaries to unemployed youth; maths and science programmes to the unemployed; and career awareness events. The targets for all of these interventions were successfully achieved, and, in most cases, exceeded.
- Given the importance of Maths and Science as building blocks for the majority of occupations in the sector, stakeholders suggested that these programmes be monitored for impact, as well as focus efforts on the development of teachers and on fewer beneficiaries, to ensure impact. Funding could also be directed at those who are applying for bursaries and as a condition before commencement of studies.
- As the role of career awareness is to disseminate accurate information and draw the right skills and potential to the sector, stakeholders proposed that events should provide greater detail so that a person is empowered to make an informed decision regarding whether or not a particular career might be suited to them or not, thus potentially avoiding career changes and unnecessary training expenditure at a later stage. It is important to continue to partner effectively to increase access to high school learners, and to emphasise the positive effects on future job prospects of pursuing Maths and Science until Grade 12.
- In terms of MQA's artisan development initiatives, it will be important to see successful throughput of learners in the



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following programmes as they are on the hard-to-fill list: Diesel Mechanic, Boilermaker, Instrument Mechanician and Rigger Ropesman. Furthermore, these learnerships need to incorporate changes in technology and include work experience at suppliers of new technology to the mines. The number of MQA-funded artisan graduates is currently higher than the number of vacancies in the sector, so it appears that enough MQA-funded artisans are being developed in the system. However, the MQA competes with other sectors for artisans, and an uncertainty with the completed numbers is that the number of graduates who do seek and find employment in the MMS after studying is unknown.

- Two of the MQA's bursary-funded disciplines are on the hard-to-fill list: Mining Engineering and Mining Surveying. With regard to Mining Engineering, it will be important for the MQA to create awareness about the specialisation of Rock Engineering among those pursuing this qualification, as a lack of career awareness is widely held by stakeholders to be the main reason for a shortage of Rock Engineers in the sector. The number of Mining Surveying bursars is low and may need to be addressed by the MQA. In contrast, the high number of Geology bursars in the system, the majority being in first or second year of studies, may need to be addressed by the MQA owing to stakeholder concerns over the past 2-3 years that large numbers of Geology graduates cannot find work.
- The primary reasons for skills gaps are outdated technology at colleges; insufficient and irrelevant workplace experience; low levels of maths and science; insufficient high quality career guidance; lack of GCC; employment equity; lack of management experience; lack of interest from youth; geographic location; and industry attractiveness.

## 6. SECTOR PARTNERSHIPS

The MQA currently has formal partnerships with 5 TVET Colleges. Most are in very early stages, but it was highlighted that better collaboration is needed between the MQA, TVET Colleges and the industry for the purposes of improving access to workplace experience. Other recommendations include ongoing development programmes for lecturers of MMS-related subjects; and the continuation of TVET College support to enable eventual accreditation of programmes.

The MQA has a very strong and effective partnership with its three tripartite partners: the DMR, the Chamber of Mines and organised Labour, who convene regularly to discuss challenges facing skills development in the MMS, which enables the MQA to respond accordingly to address them. Additionally, the MQA is becoming increasingly involved in inter-SETA meetings, which involve the sharing of skills development progress reports and a focus on possible areas of collaboration. With regard to green skills, a partnership with the Department of Water and Sanitation is recommended to mitigate the challenge of significantly reducing water levels, to combine strengths and avoid any duplication of work. Furthermore, partnerships should be formed with R&D departments of companies that focus on cleaner production and remediation research.

## 7. SKILLS PRIORITY ACTIONS

As a result of the findings in this SSP, the following priorities are recommended to the MQA:

- Priority 1: Support transformation of the sector through skills development
- Priority 2: Core mining skills must continue to be developed through skills programmes
- Priority 3: Monitor and develop the skills for minerals beneficiation
- Priority 4: Continue to improve health and safety standards
- Priority 5: Develop skills for sustainability.



# TABLE OF CONTENTS

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| FOREWORD                                                                                           | 107 |
| EXECUTIVE SUMMARY                                                                                  | 110 |
| RESEARCH PROCESS AND METHODS                                                                       | 110 |
| Introduction                                                                                       | 110 |
| Key Findings                                                                                       | 110 |
| SECTOR PROFILE                                                                                     | 110 |
| 1.1. Introduction                                                                                  | 118 |
| 1.2. Scope of Coverage                                                                             | 118 |
| 1.3. Key Role Players                                                                              | 118 |
| 1.4. Economic Performance                                                                          | 120 |
| 1.5. MMS Future Outlook                                                                            | 124 |
| 1.6. Employer Profile                                                                              | 125 |
| 1.7. Labour Market Profile                                                                         | 127 |
| 1.8. Summary and Conclusion                                                                        | 133 |
| 2. KEY SKILLS ISSUES                                                                               | 134 |
| Introduction                                                                                       | 134 |
| Change Drivers                                                                                     | 134 |
| Alignment of National Strategies and Plans                                                         | 136 |
| Conclusion                                                                                         | 138 |
| 3. EXTENT OF SKILLS MISMATCH                                                                       | 139 |
| 3.1. Introduction                                                                                  | 139 |
| 3.2. Extent and Nature of Demand                                                                   | 139 |
| 3.3. Extent and Nature of Supply                                                                   | 142 |
| 3.4. Identification of Scarce Skills and Skills Gaps                                               | 153 |
| 3.5. Conclusion                                                                                    | 158 |
| 4. SECTOR PARTNERSHIPS                                                                             | 159 |
| Introduction                                                                                       | 159 |
| State of Existing Partnerships                                                                     | 159 |
| Proposed New Partnerships                                                                          | 163 |
| Conclusion                                                                                         | 164 |
| 5. SKILLS PRIORITY ACTIONS                                                                         | 165 |
| Research findings                                                                                  | 165 |
| Recommended Priority 1: Support transformation of the sector through skills development            | 166 |
| Recommended Priority 2: Core Mining Skills Must Continue to Be Developed through Skills Programmes | 166 |
| Recommended Priority 3: Monitor and Develop the Skills Required for Minerals Beneficiation         | 167 |
| Recommended Priority 4: Continue to Improve Health and Safety Standards                            | 168 |
| Recommended Priority 5: Develop Skills for Sustainability                                          | 168 |
| Conclusion                                                                                         | 168 |
| BIBLIOGRAPHY                                                                                       | 169 |



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## LIST OF FIGURES

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Figure 2: Mining and Minerals Sector Value Chain                           | 121 |
| Figure 3: Value of sales of total minerals                                 | 123 |
| Figure 4: MMS contribution to GDP growth                                   | 123 |
| Figure 5: Management levels by race                                        | 129 |
| Figure 6: Employment by education level                                    | 129 |
| Figure 7: Number of Employees vs Total Wage Payments                       | 140 |
| Figure 8: MQA Learnerships (excluding artisan): Target vs Actual 2015-2016 | 144 |
| Figure 9: Top 10 Learnerships Completed in 2015-16 (excluding artisan)     | 145 |
| Figure 10: MQA Learnerships (artisan): Target vs Actual 2015-2016          | 145 |
| Figure 11: Artisan qualifications completed                                | 146 |
| Figure 12: Summary of supply-side concerns                                 | 153 |

## LIST OF TABLES

|                                                                                              |     |
|----------------------------------------------------------------------------------------------|-----|
| Table 1: National Government Departments                                                     | 118 |
| Table 2: MMS State-Owned Enterprises and their Roles                                         | 119 |
| Table 3: Key Industry Stakeholders                                                           | 119 |
| Table 4: Sector contribution to national GDP                                                 | 124 |
| Table 5: No of companies submitting WSPs                                                     | 126 |
| Table 6: Profile of MMS companies by subsector                                               | 126 |
| Table 7: Geographical location of MMS companies                                              | 127 |
| Table 8: Gender and race                                                                     | 128 |
| Table 9: Employment trends in the MMS                                                        | 130 |
| Table 10: Alignment of the MQA Strategic Plan to Government National Policies and Strategies | 137 |
| Table 11: Occupational vacancies by category                                                 | 139 |
| Table 12: Hard-to-fill occupations                                                           | 140 |
| Table 13: Employment trends by occupational category                                         | 141 |
| Table 14: Foreign skills                                                                     | 142 |
| Table 15: Artisan learnerships entered and completed                                         | 146 |
| Table 16: Certificates issued by Chamber of Mines                                            | 148 |
| Table 17: Graduate numbers in MMS-related qualifications                                     | 149 |
| Table 18: Graduate numbers in MMS-related qualifications, by gender and race, 2014           | 149 |
| Table 19: Non-employee bursaries funded by employers                                         | 150 |
| Table 20: Employee study-assistance programmes funded by employers                           | 150 |
| Table 21: MQA-funded bursars                                                                 | 151 |
| Table 22: Certificates of Competency issued by DMR                                           | 152 |
| Table 23: Scarce skills by vacancy                                                           | 153 |
| Table 24: Primary skills concerns in the MMS                                                 | 155 |
| Table 25: MQAs' OFO Code Pivotal Skills List (2017-18)                                       | 157 |



# RESEARCH PROCESS AND METHODS

## INTRODUCTION

SETAs are expected to facilitate the delivery of sector-specific skills interventions that help to achieve the goals of the NSDS III. It is therefore a core mandate for the SETA to develop National Sector Skills Plans (SSPs). The SSP must outline current and projected needs of the sector and sector employers, as well as the current and future training and qualification needs of the sector that are agreed with stakeholders and can improve the match between education and training supply and demand. The SSP must also highlight suitable interventions that will address the skills needs of the sector.

The MQA therefore aims to support objective and informed decision making for skills development through research in the MMS. The MQA intends to contribute to the body of skills development both nationally and within the provinces through collaboration with relevant bodies within the MMS and to then disseminate the research reports and findings.

The purpose of this section is to provide details regarding the research process and methodology employed by the research team in order to complete an SSP for the MQA which is both factual and analytical, and therefore informative, useful and actionable for the SETA.

## RESEARCH PROCESS AND METHODS

### Research Topic

The SSP research process pursued an answer to the following primary question: "What are the key issues influencing the Mining and Minerals Sector (MMS) which are either currently or have the potential to impact skills supply and demand, as well as skills development?"

### Nature of the Study

The research study used both quantitative and qualitative research methodologies. It was important to include qualitative methods owing to the limitations of quantitative methods in providing insight to data and statistics. Insight was important to achieve as the sector is complex and subject to significant internal and external pressures which must be understood for their implications on skills development.

### Objectives of the Study

The objectives of the research study were to:

- Determine the key change drivers impacting the sector where skills development is concerned.
- Highlight any skills mismatches between demand and supply in the sector.
- Investigate the primary reasons for the skills mismatches.
- Understand stakeholders' experiences of, and beliefs regarding the effectiveness and impact of MQA's skills development interventions for the sector.
- Determine whether there is any potential for growth and the creation of much-needed jobs in the sector, which would influence skills development initiatives for the MQA.



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## Data Collection Tools

Much of the qualitative research that was completed was in the form of 2 large workshops undertaken in each of the 9 provinces (i.e. 18 workshops in total) as well as 2 smaller focus groups in each of the 9 provinces (i.e. 18 focus groups overall), a total of 36 engagements around the country. The large workshops were effective in bringing together numerous stakeholders from industry, labour and government to discuss the topic of the research. The focus groups were attended by a smaller number of regional experts who were able to provide deeper insight and greater detail into issues that cannot be adequately covered in the time allocated for the large workshops. The last set of workshops and focus groups held early in 2016 were used to involve stakeholders in the sector in the assessment process of the findings, to ensure that all key skills issues had been identified and addressed. Discussion Guides were used at all of the meetings, both workshop and task teams, to ensure that attention was maintained on the important issues of the research.

Additionally, personal interviews were conducted with a small sample of regional employers, labour and government around the country between June 2015 and March 2016, as well as with national experts in Gauteng during May 2016.

## Sample Size and Scope

Where the regional consultation sessions are concerned, 2 large workshops were held in each of the 9 regions (i.e. 18 workshops in total), where an approximate average of 45 stakeholders attended per workshop. With regard to the 2 smaller focus groups in each of the 9 provinces (i.e. 18 focus groups in total), an average of 20 people attended per focus group.

With regard to personal interviews, 5 employers were consulted (1 representing each of the main subsectors), 2 DMR officials, 2 artisan development experts, an industry skills development specialist and a labour representative.

The MQA Board, MQA's EXCO as well as MQA's SRP Committee were all engaged during May 2016 for their expertise on and assessment of the research findings. All outstanding matters needing clarity were discussed fully and resolved during these high-level engagements.

With regard to the WSP/ATR database, it is widely accepted that the WSP/ATRs submitted by employers in the MMS provide an employment coverage of as much as 95% of the sector, therefore the sample size of this particular quantitative data type is statistically very high.

The scope of the project involved covering the following areas:

- Reviewing the economic landscape and performance of the sector, the employer and labour profiles, as well as outlook of the sector.
- Outlining key change drivers influencing the sector, with particular attention to those which impact skills development.
- Analysing the 2015-16 WSP data submitted, to understand the emerging trends in the sector as well as possible limitations of the data.
- Analysing the state of education institutions providing the skills needed by the sector.
- Identifying the key skills mismatches in the sector, and the primary reasons thereof.
- Seeking assessment of the findings, by both key national and regional stakeholders.
- Analysing MQA's partnerships at a national level as well as around the country.
- Determining the key research findings.
- Recommending 5 key priority areas for the MQA.



## Data Sources and Data Sets

The quantitative data used was sourced mainly from MQA's weighted WSP/ATR submissions and MQA's programme interventions databases, as well as through literature and document review of relevant policies and previous SSPs. Other substantial information sources included DMR, DHET, Stats SA, Quantec and Chamber of Mines reports. One of the main challenges in using data from different sources is the methodologies and purposes for which this data was collected, which sometimes provides results based on their particular foci. For example, data from MQA includes a sector referred to as 'Services Incidental to Mining' which has important skills development implications for the remit of the SETA, which is not usually included in other data sources, for example DMR.

Furthermore, qualitative data was sourced in the form of regional workshops and one-on-one consultations with expert stakeholders in the sector, including representatives from DMR, the Chamber of Mines, the National Union of Mineworkers (NUM) and the Department of Higher Education and Training (DHET). This information provided rich insight into the quantitative data and statistics, and facilitated understanding of the change drivers impacting the sector, skills demand and supply, the current and emerging skills gaps and potential solutions to the complexities and challenges in providing skills development for the sector.

## Time-frame of the Study

One year was taken to fully research the topic. It began in June 2015 with the first set of 9 regional workshops, and ended in May 2016 with the Board, EXCO and SRP Committee meetings.

## KEY FINDINGS

The key findings of this report which are aligned to the objectives of the research are as follows:

- The main change drivers currently impacting the MMS are: technology, as it impacts skills planning in terms of the need to ensure that learners graduate with knowledge of, and experience in the latest technology being used in the sector; retrenchments, as the widespread downscaling of operations across the sector has led to large-scale retrenchment drives, resulting in the need to prioritise portable skills training; and transformation, as targets contained in the Mining Charter are designed to redress historical imbalances.
- The 10 most hard-to-fill occupations were found to be Mining Manager, Mine Planner, Mining Engineer, Rock Engineer, Surveyor, Rigger Ropesman, Diesel Mechanic, Boilermaker, Instrumentation Mechanician and Fitter. Experts believe that the most concerning are Mining Manager, Rock Engineer, Diesel Mechanic and Rigger Ropseman.
- The primary reasons for skills gaps are outdated technology at colleges; insufficient and irrelevant workplace experience; low levels of maths and science; insufficient access to high quality career guidance; geographic location; employment equity; lack of succession planning; lack of management skills; lack of interest from youth in certain occupations; and industry attractiveness.
- Maths and Science and career awareness events should be monitored for impact given the importance of Maths and Science as building blocks for the majority of occupations in the sector, and with career awareness' potential to disseminate accurate information as well as draw the right skills and potential to the sector.
- Successful implementation of Mining Phakisa, the Minerals Beneficiation Action Plan and 3 of the 18 SIPs projects has the potential to create and sustain jobs in the MMS. Greater collaboration between the MQA and the key role-players involved in these initiatives is needed in order to understand in advance what the skills requirements will be and to respond accordingly.



## 1.1. INTRODUCTION

The purpose of this chapter is to provide an overview of the Mining and Minerals Sector (MMS) in South Africa to enable understanding of the: 1) Scope of coverage; 2) Key role players; 3) Sector contribution to the broader South African economy; 4) Employer profile; and 5) Labour profile.

## 1.2. SCOPE OF COVERAGE

The MMS is demarcated on the basis of the three-digit Standard Industrial Classification (SIC) codes that are used in capturing the data for the National Accounts. These mining activities are covered by the SIC codes 21000 to 29000, as well as a small component of manufacturing – namely the manufacturing of Cement, Lime and Plaster (SIC code 34240), Jewellery Manufacturing and Related Articles (SIC code 39210), the Cutting and Polishing of Diamonds (SIC code 39212) Jewellery and Related Articles (composed of precious metals, precious and semi-precious stones and pearls) (SIC code 39211) and Other Precious and Semi-precious Stones Precious and Semi-precious Stone Cutting and Polishing (SIC code 39219).

Based on the MQA SSP Update 2014/15-2020, the analysis of data covering the MMS SIC codes requires that the organisations in the sector be categorised into the following nine subsectors: 1) Coal Mining; 2) Gold Mining; 3) Platinum Group Metals (PGM) Mining; 4) Diamond Mining; 5) Other Mining, which includes the mining of iron ore, chrome, manganese, copper, phosphates and salt; 6) Cement, Lime, Aggregates and Sand (CLAS); 7) Services Incidental to Mining; 8) Diamond Processing; and 9) Jewellery Manufacturing.

## 1.3. KEY ROLE PLAYERS

The MMS is a regulated industry and has several key role players, ranging from government regulatory institutions, employer representatives to workers' unions. The following tables set out the broad contributions that each is making to the MMS.

### 1.3.1. National Government Departments

Table 1 shows the government departments which are interlinked with the MMS.

| DEPARTMENT                                         | ROLE                                                | FUNCTION IN RELATION TO MMS AND SKILLS DEVELOPMENT                                                                                                                                                                                                                              |
|----------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Department of Mineral Resources (DMR)              | Mineral policy and regulation                       | <ul style="list-style-type: none"><li>Mineral policy and promotion</li><li>Administer the Minerals and Petroleum Resources Development Act No. 28 of 2002 (MPRDA)</li><li>Mine health and safety and enforcement and monitoring implementation of the Mining Charter.</li></ul> |
| Department of Energy (DoE)                         | Energy minerals policy, regulation, & energy supply | <ul style="list-style-type: none"><li>Promoting energy minerals. The main relevant commodity for MMS is coal.</li></ul>                                                                                                                                                         |
| Department of Higher Education and Training (DHET) | TVET, HET, Skills Development, School of Mines      | <ul style="list-style-type: none"><li>Planning for higher education provision to the mining sector</li><li>Setting up national skills development agenda via the regulation of SETAs, including MQA</li><li>Career awareness</li></ul>                                          |



### 1.3.2. State owned enterprises that play a role in the MMS

Table 2 below lists some of the main state owned enterprises (SOEs) which are involved in MMS research, compliancy monitoring, skills development and promotion of minerals among others.

**Table 2: MMS State-Owned Enterprises and their Roles**

| STATE-OWNED ENTERPRISES                             | ROLE                                     | FUNCTION IN RELATION TO MMS AND SKILLS DEVELOPMENT                                                                                                                                                                                                                   |
|-----------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mine Health and Safety Council                      | Occupational Health and Safety           | <ul style="list-style-type: none"> <li>Improving and promoting occupational health and safety in the mining industry</li> <li>Liaise with MQA about MHS and skills development</li> </ul>                                                                            |
| Mintek                                              | Mineral processing and Metallurgy        | <ul style="list-style-type: none"> <li>R &amp; D expertise; intellectual capital-engineers, scientists and technologists</li> <li>Provide infrastructure of modern laboratories, pilot plant and workshops which can be used by MQA in skills development</li> </ul> |
| Engineering Council of South Africa (ECSA)          | Regulation of the engineering profession | <ul style="list-style-type: none"> <li>Accreditation of engineering programmes</li> <li>Registration of persons as professionals</li> <li>Regulation of the practice of registered persons</li> </ul>                                                                |
| South African Diamond and Precious Metals Regulator | Diamond and Precious metals regulation   | <ul style="list-style-type: none"> <li>Regulation of diamond, gold and PGMs</li> <li>Skills transfer</li> <li>Business development support</li> <li>Local beneficiation</li> </ul>                                                                                   |
| State Diamond Trader                                | Buying and selling of rough diamonds     | <ul style="list-style-type: none"> <li>Promote equitable access to beneficiation of diamonds</li> <li>Develop South Africa's diamond cutting and polishing skills</li> </ul>                                                                                         |

### 1.3.3. MMS key industry stakeholders

Table 3 shows some of the key industry stakeholders which are involved in advocacy, promotion and other industry development initiatives.

**Table 3: Key Industry Stakeholders**

| INDUSTRY STAKEHOLDER                                 | ROLE                                        | FUNCTION IN RELATION TO MMS AND SKILLS DEVELOPMENT                                                                                                                                                                                                                              |
|------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chamber of Mines of South Africa                     | Creating partnerships with key stakeholders | <ul style="list-style-type: none"> <li>Establish conducive policy, legislative and operating environment</li> </ul>                                                                                                                                                             |
| Copper Development Association (Pty) Ltd             | Copper industry representation              | <ul style="list-style-type: none"> <li>Promote and expand the use of copper and copper alloys</li> <li>Marketing and promoting skills which can be adopted in MQA learning materials</li> </ul>                                                                                 |
| Federation of SA Gem & Mineralogical Societies       | Earth science clubs                         | <ul style="list-style-type: none"> <li>Assist in formation of earth science clubs and societies</li> <li>Marketing and promoting skills which can be used in MQA training materials</li> </ul>                                                                                  |
| South African Mining Development Association (SAMDA) | Lobbying to government and organised labour | <ul style="list-style-type: none"> <li>Junior mining<sup>7</sup> initiative by SA junior mining investor</li> <li>Create enabling environment for raising finance</li> <li>Develop technical and other skills</li> <li>Practice responsible environmental management</li> </ul> |

<sup>7</sup> Junior mines have an asset base of between R50 million and R7 billion. Those above these thresholds are referred to as 'majors' and below these are 'small scale miners'.



### 1.3.4. MMS Worker Representatives

The mining sector is highly unionised with a great number of employees represented or affiliated to a union. Mine unions are amongst the most active and vocal unions in South Africa and their activities have a significant bearing on the productivity in the MMS. NUM and UASA are the two unions which form part of the tripartite alliance within the MQA's structures.

## 1.4. ECONOMIC PERFORMANCE

This section provides an overview of the importance and contribution of the sector to the country.

### 1.4.1. Overview of the MMS

South Africa accounts for 96%<sup>1</sup> of known global reserves of the platinum group metals (PGMs), 74% of chrome, 26% manganese and 11% of gold reserves.<sup>2</sup> As a leading producer and supplier of a range of minerals, the country should be in a position to offer a highly competitive investment location and ensure that it can meet specific trade and investment requirements of prospective investors and business people, whilst also meeting the development needs of its populace.

South Africa remains one of the largest net exporters of minerals and metals. In the mining industry South Africa is an important global hub with deep backward vertical integration and a fully-fledged supply industry serving both South African and foreign companies.<sup>3</sup> The MMS has played a key role in the country's economic development, which has transformed South Africa into the most industrialised country in Africa. It has also been the principal driver of the current infrastructure network which now underpins jobs in many other sectors. The New Development Plan and New Growth Path both recognise the critical role that mining contributes to growing investments, exports, GDP and job creation.

Given the sector's importance to the economy, a concern is that mining production marked a significant decline in March 2016, falling by a record 18% year on year in March, accelerating from an 8.3% fall year on year in February,<sup>4</sup> with a particularly sharp fall in output of PGMs. The main contributors to the decline in mining output were PGMs, coal, iron ore, manganese ore, and gold. Output was negatively affected by lower global commodity prices and slowing demand from China<sup>5</sup>, among others. Seasonally adjusted mining production fell by 5.2% in the first quarter of 2016 compared with the previous quarter, again mainly due to lower PGMs and iron ore production.<sup>6</sup>

### 1.4.2. Value Chain of the MMS

Figure 1 below explains the MMS value chain, showing the industry's primary activities from exploration to minerals value addition and the support activities in each stage of the value chain. A value chain is a set of activities that companies operating in a specific industry perform in order to deliver a valuable product or service for the market.<sup>7</sup> As illustrated in Figure 1, the majority of the companies in Stage 2 are involved in primary production while Stages 3-5 depict secondary production, with increasing degrees of processing, beneficiation and value addition.

Source: Underhill Corporate Solutions illustration based on Ecopartners<sup>8</sup>

1

2 <http://www.gcis.gov.za/sites/www.gcis.gov.za/files/docs/resourcecentre/pocketguide/2012/15%20Mineral%20Resources.pdf>

3 African Economic Outlook, 2014.

4 <http://www.statssa.gov.za/publications/P2041/P2041March2016.pdf>

5 <http://www.statssa.gov.za/publications/P2041/P2041March2016.pdf>

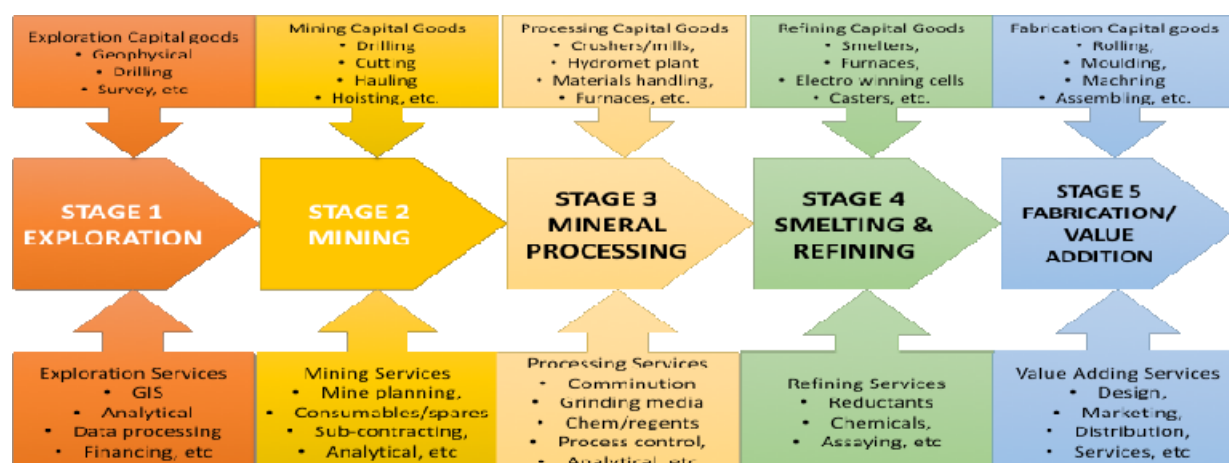
6 [http://www.statssa.gov.za/?page\\_id=1856&PPN=P2041&SCH=6459](http://www.statssa.gov.za/?page_id=1856&PPN=P2041&SCH=6459)

7 Porter, Michael E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York.: Simon and Schuster. Retrieved 13 May 2016.

8 <http://www.ecopartners.co.za/docs/Wits%20University%20Mineral%20Economics%20Value%20Chain%20Analysis%20February%202011.pdf>



**Figure 2: Mining and Minerals Sector Value Chain**



### 1.4.3. Overview of the MMS Subsectors

#### 1.4.3.1. Cement, lime, aggregates and sand (CLAS)

The CLAS subsector is dominated by small and medium-sized mining companies. The vast majority of small-scale mining applications (90%)<sup>9</sup> also fall into this group of industrial commodities. In October 2015 CLAS group minerals had recorded a decrease of -4,8% year on year for non-metallic mineral production, and continued to decline to -11.4% as of March 2016.<sup>10</sup> Large firms in this subsector include cement manufacturers, phosphates, vermiculate and dimension stone producers. Dimension stone is also exported in bulk.

#### 1.4.3.2. Coal mining

The South African coal mining industry is ranked 6<sup>th</sup> in the world in terms of production and 6<sup>th</sup> in terms of reserves, contributing 3.5% to global output.<sup>11</sup> In 2014, South Africa produced 260Mt of coal with 70.3% being sold locally (amounting to a sales value of R54.7 billion) with the remaining 29.7% exported (amounting R46.7 billion). South Africa exports coal to 34 countries, with the European Union being the primary market (84.5%). Over 80% of the country's saleable coal is supplied by the five largest mining groups. Coal reserves, and therefore coal mining activity, are predominantly in Mpumalanga and Limpopo.<sup>12</sup>

#### 1.4.3.3. Diamond mining

South Africa was ranked 7<sup>th</sup> in the world in 2015 in terms of diamond production.<sup>13</sup> In South Africa, deposits are concentrated in Northern Cape, Free State and Limpopo. In 2014 South Africa produced 8.12Mct of diamonds, of which 7.79Mct were Kimberlite, 308 121ct alluvial and 27 302ct marine. Local diamond sales totalled R8.8 billion while foreign export sales amounted to R7.73 billion.<sup>14</sup> Although there was a marginal decrease in the carats mined between 2013-14 and 2014-15 the total sales rose significantly.<sup>15</sup>

<sup>9</sup> <http://www.statssa.gov.za/publications/P2041/P2041March2015.pdf>

<sup>10</sup> <http://www.statssa.gov.za/publications/P2041/P2041March2016.pdf>

<sup>11</sup> <http://www.chamberofmines.org.za/sa-mining/coal>

<sup>12</sup> Mwape P, Roberts MJ, Mokwena E, Musi L, Tjatjie T, Mnguni M, Mashaba P, Kwata PG. Part One: South Africa's Mineral Industry – General Review. Department of Minerals and Energy, South Africa's Mineral Industry, 2007/2008.

<sup>13</sup> <http://www.gov.za/about-sa/minerals>

<sup>14</sup> Chamber of Mines, Facts and Figures, 2014

<sup>15</sup> SAMI 2014-2015



#### 1.4.3.4. Gold mining

The South African gold mining industry is ranked 1<sup>st</sup> in the world in terms of gold reserves and 7<sup>th</sup> in production,<sup>1</sup> contributing 5.6% to global production.<sup>2</sup> Three of the world's 10 largest gold mining companies have headquarters in South Africa and are multinational corporations with operations in Australia, West Africa and South America. Gauteng dominates in gold mining accounting for 51.6% of South Africa's production. Free State follows (21.6%); North West (20.6%); Mpumalanga (4.6%) and then Limpopo (1.6%). Approximately 5% of South Africa's gold production is beneficiated locally to coins and jewellery.<sup>3</sup> Total gold production, in terms of kilograms, has been decreasing sharply over the years. Total monthly production fell from around 25 000kgs in 2005 to less than 10 000kgs in 2016, a 60% decrease in 10 years.

#### 1.4.3.5. PGM mining

PGMs (Platinum Group Metals) consists of six chemically similar elements: platinum, palladium, rhodium, ruthenium, iridium and osmium. South Africa's reserves constitute 87% of the global reserve base and the country contributes around 58.7% to global production, ranking 1<sup>st</sup> in both categories. South Africa's bushveld (North West province and a smaller part of Limpopo province) hosts approximately 80% of PGM-bearing ore.<sup>4</sup> From March 2015 to March 2016 PGMs registered the largest negative contribution in mining production year on year: -23,7% decrease in mining production to -4.5% percentage points<sup>5</sup> on mining production and sales.<sup>6</sup>

#### 1.4.3.6. Other mining commodities

Included in this bracket are producers of uranium, copper, chrome, iron ore, manganese and salt. Uranium production is a by-product of gold mining and distribution of the sector mirrors that of gold mining. South Africa's copper deposits lie mainly in Limpopo with copper being mainly mined by one large company. With regard to chrome and iron ore, the subsector was significantly and negatively impacted from the massive decline in global demand, particularly from China. Widespread downscaling and retrenchment drives characterised the subsector for much of 2015. With regard to iron ore, South Africa is ranked 13<sup>th</sup> in the world for reserves; 6<sup>th</sup> for production and 5<sup>th</sup> for exports. Manganese is ranked 1<sup>st</sup> in the world in terms of reserves, 2nd in production and 2nd for exports. Iron ore and manganese deposits are concentrated in Northern Cape.<sup>7</sup>

#### 1.4.3.7. Services incidental to mining

The Services Incidental to Mining category consists of a large group of relatively smaller companies providing services to the MMS. This includes research and development in the mining and mineral extraction, training, catering, payroll services, manufacturing, distribution, hiring and maintenance of machinery and equipment, consulting services, shaft sinking, transportation and logistics.

#### 1.4.3.8. Diamond processing and jewellery manufacturing

The South African diamond processing industry consists of 221 licenced diamond manufacturers. The diamond trading company of De Beers is the major supplier of rough diamonds to the sector although some are sourced from local independent mines and others imported from Belgium, a major global diamonds buyer of rough diamonds. The Master Diamond Cutters' Association has 80 members which employ 95% of the employees in this subsector.<sup>8</sup> South Africa's

1 <http://www.mineweb.com/regions/>

2 Chamber of Mines. Facts and Figures booklet, 2012.

3 <http://www.dmr.gov.za/publications/south-africas-mineral-industry-sami.html>

4 <http://www.chamberofmines.org.za/sa-mining/platinum>

5 <http://www.statssa.gov.za/publications/P2041/P2041March2016.pdf>

6 <http://www.statssa.gov.za/publications/P2041/P2041March2016.pdf>

7 Chamber of Mines, Facts and Figures

8 <http://www.essentialsjewelry.com/southafrica-gem-jewelry/south-africa-rough-diamond.html>



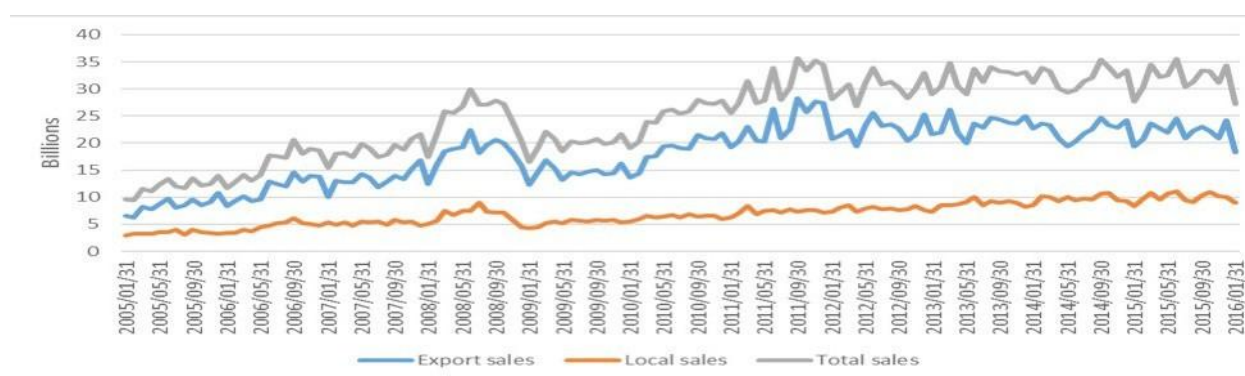
State Diamond Trader was launched in February 2008 and is mandated to purchase 10% of South Africa's rough diamond production to sell to local beneficiaries.

Firms in the jewellery manufacturing subsector benefit from mining outputs such as precious metals (gold, platinum and silver) and diamonds in the manufacture of jewellery for both the domestic and export markets. The majority of companies in this subsector are small and located in Gauteng, Western Cape and KwaZulu-Natal.

#### 1.4.4. Mineral Sales and Exports

Figure 2 shows the local, export and total sales for all minerals. The trends for the demand of South African minerals as shown by the total sales for the period 2005-2016 shows an annual average of R378.5 billion. Revenue increased by only 0.1% in 2015 from 2014 total sales. Total sales peaked around 2011 and have been decreasing gradually. The decrease is attributed to the decrease in exports, since local sales have been increasing steadily.

**Figure 3: Value of sales of total minerals**



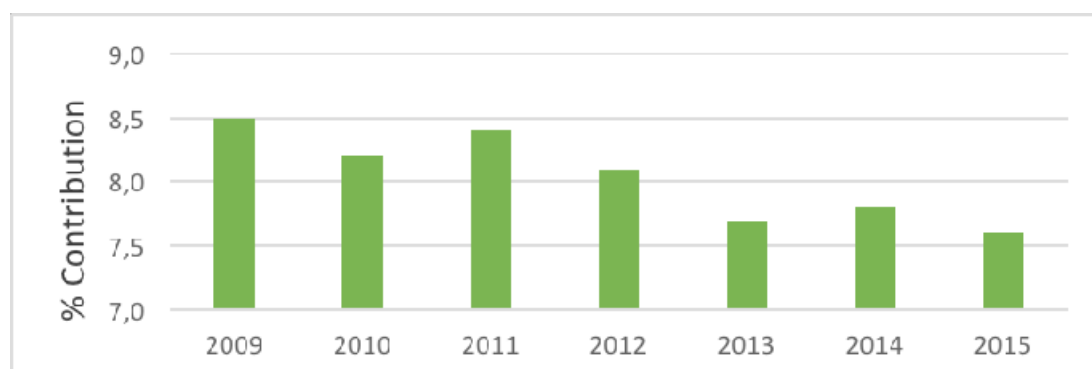
Source: Quantec/DMR (2016)

Export sales were over R1.3 trillion, representing around 72% of the total mineral sales for the period 2011-2015. Local sales have also been on an upward trend with sales of R31 billion, which is 26% more than 2011 sales. This growth can be partly explained by the emergence of the "middle class".

#### 1.4.5. Sector contribution to GDP

Figure 3 shows the MMS' contribution to national GDP over the years.

**Figure 4: MMS contribution to GDP growth**



Source: Stats SA, 2016



As shown in Figure 3, the MMS' contribution to South Africa's GDP has decreased by 0.9% from 2009 to 2015. The decline in global commodity demand, downscaling and closing down of mines compounded the decline in 2015, resulting in a decline in mining activity in the second quarter (-6.4%) and third quarter (-9.8% decline) in 2015. The National Treasury reported that the global outlook for economic growth is subdued, weighed down by a prolonged slump in commodity prices and slower growth in China. Prices are not expected to recover soon. Low global growth means fewer exports for South Africa, thus impacting mineral sales.

#### 1.4.6. Comparison of Economic Sector Contribution to GDP

Table 4 below shows the economic sector contributions to the national GDP for the past 6 years (2010-2015).<sup>1</sup> In 2015 Finance, real estate and business services was the highest individual contributor to the national GDP, with 19.63%, General Government Services 2<sup>nd</sup> with 15.45%. The MMS<sup>2</sup> was the 6<sup>th</sup> highest contributor to GDP in 2015. The MMS has experienced the biggest decline in GDP contribution of all sectors (from 8.2% in 2010 to 7.6% in 2015).

**Table 4: Sector contribution to national GDP**

| ECONOMIC SECTOR                                               | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------------------------------------------|------|------|------|------|------|------|
| Agriculture, forestry and fishing                             | 2.5  | 2.4  | 2.3  | 2.3  | 2.3  | 2.4  |
| Mining and quarrying                                          | 8.2  | 8.4  | 8.1  | 7.7  | 7.8  | 7.6  |
| Manufacturing                                                 | 12.7 | 13.1 | 13.0 | 13.0 | 12.8 | 12.6 |
| Electricity, gas and water                                    | 2.5  | 2.5  | 2.4  | 2.4  | 2.3  | 2.3  |
| Construction                                                  | 3.6  | 3.5  | 3.4  | 3.4  | 3.4  | 3.4  |
| Wholesale, retail and motor trade; catering and accommodation | 13.3 | 13.5 | 13.6 | 13.7 | 13.7 | 13.7 |
| Transport, storage and communication                          | 8.5  | 8.4  | 8.3  | 8.4  | 8.3  | 8.4  |
| Finance, real estate and business services                    | 19.4 | 19.1 | 19.2 | 19.4 | 19.6 | 19.6 |
| General government services                                   | 14.8 | 14.7 | 14.9 | 15.1 | 15.2 | 15.4 |
| Personal services                                             | 5.5  | 5.4  | 5.4  | 5.4  | 5.3  | 5.3  |
| Total value added                                             | 90.9 | 90.8 | 90.6 | 90.6 | 90.7 | 90.7 |
| Taxes less subsidies on products                              | 9.1  | 9.2  | 9.4  | 9.4  | 9.3  | 9.3  |
| GDP at market prices                                          | 100  | 100  | 100  | 100  | 100  | 100  |

Source: Stats SA, 2016

## 1.5. MMS FUTURE OUTLOOK

### 1.5.1. Mining Phakisa

The Mining Phakisa, an initiative of the Presidency, aims to expand the lifespan of the mines by locally developing the machinery required to mine narrow, hard rock reefs, which is where the majority of platinum and gold resources lie in South Africa. These resources are currently unviable to mine due to safety, health and economic reasons. Job sustainability is a high priority area, with the intention that jobs in mining will be sustained through access to currently unmineable resources. In terms of skills development, upskilling training drives will be required for all skills levels of workers, including managers and supervisors, to ensure a smooth transition to mechanisation. A focus on AET programmes up to level 4 as a way of improving literacy and numeracy levels will be important as a way of preparing existing and potential employees to operate new machinery and coordinate new processes.

1 The national accounts data only covers mining & quarrying and not the total MMS. No separate information is available on the performance of the beneficiation components of the MMS (the diamond processing and jewellery manufacturing subsectors) and the services incidental to mining subsector. This economic overview thus focuses on the mining & quarrying sector.

2 The national accounts data only covers mining & quarrying and not the total MMS. No separate information is available on the performance of the beneficiation components of the MMS (the diamond processing and jewellery manufacturing subsectors) and the services incidental to mining subsector. This economic overview thus focuses on the mining & quarrying sector.



### 1.5.2. Mineral beneficiation

Beneficiation refers to the transformation of a mineral (or a combination of minerals) to a higher value product, which can either be consumed locally or exported. The term is used interchangeably with “value-addition” (DMR, 2011). Mineral beneficiation is premised on the proposition that “opportunities exist along the mining value chain from extraction, processing to shipping and beneficiation of minerals such as diamonds, copper, lead, zinc and manganese are some of the potential investment areas in the sector” (Underhill Corporate Solutions, 2013).<sup>3</sup> The mining industry value chain has been prioritised as an economic growth node in the New Growth Path, which highlights a path for the MMS out of its depression until 2020. The Minerals Beneficiation Strategy is aimed at encouraging the country to move from the sale of commodities from stage 2 to stage 5 (Figure 1). The government is currently drafting the Mineral Beneficiation Action Plan (MBAP), which seeks to advance “local value-addition across five mineral value-chains, namely; iron-ore and steel, platinum-group metals, polymers, titanium and mining inputs”.<sup>4</sup> The implementation of the Minerals Beneficiation Strategy and MBAP is expected to create and retain much needed jobs in the MMS. If minerals are processed locally, is potential to boost the manufacturing industry and create much needed jobs along the MMS value chain.

### 1.5.3. Strategic Infrastructure Projects

There are 3 of 18 strategic infrastructure projects (SIPs) which have a direct bearing on the MMS:

- SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst. According to Presidential Infrastructure Coordinating Commission (PICC, 2012)<sup>5</sup> SIP 1 is the largest of the 18 SIPs by project value and is estimated at around R803 billion. The Waterberg Coal Complex in Lephalale is amongst the richest untapped mineral resources in the country and is a source for future coal reserves both for local and international use. The focus of SIP 1 is to unlock mineral resources which will generate thousands of direct jobs across the areas unlocked. Primary minerals on SIP 1 include coal (18 billion tons), chromite (5.5bn tons), platinum (6.3bn tons) and palladium (3.6bn tons).
- SIP (SIP 4) is linked to mineral beneficiation as it involves the facilitation of development of the MMS by opening up beneficiation opportunities in the North West (PICC, 2012).
- SIP 5: this entails the expansion of the rail and port infrastructure in the Saldanha area, construction of industrial capacity at the back of these ports (including a possible industrial development zone), strengthening maritime support for the gas and oil activities along the West Coast, and expansion of iron ore mining production.

SIPs 1, 4 and 5 will require new skills and there is potential for the creation of additional MMS-related jobs. The major occupational categories likely to be in demand include artisans, project managers and ‘green’-related skills. The MMS therefore needs to start preparing for the expected increase in demand for skills.

## 1.6. EMPLOYER PROFILE

The employer profile is obtained primarily from the weighted<sup>6</sup> MQA WSP/ATR dataset. An assessment of the proportion of companies submitting WSPs is illustrated in Table 5 below. It reflects a steadily increasing number of submissions from 2007 to 2015. As of 31<sup>st</sup> May 2016, 634 WSPs were received by the MQA.

Table 5 also shows the number of MQA/SDL-registered companies over the last 4 years. While the number appears to be low in comparison to the number of WSP submissions, the registered companies include 1 342 small companies, and it is believed by stakeholders that employment coverage (a better indication) is very high. As it is impossible to determine the total employment in the MMS by using WSP data (as not all companies submit), DMR data was used to get a sense of total employment coverage. Important to note is that DMR collects information on the sector in a different

3 [http://www.merseta.org.za/Portals/0/merSETA%20Regional%20Sector%20Skills%20Plan\\_%20Free%20State%20%20Northern%20Cape%2004092013.pdf](http://www.merseta.org.za/Portals/0/merSETA%20Regional%20Sector%20Skills%20Plan_%20Free%20State%20%20Northern%20Cape%2004092013.pdf)

4 Department of Trade and Industry (DTI) is leading the drafting process, which also involves the National Treasury, the Economic Development Department, the Department of Mineral Resources (DMR) and the Department of Science and Technology (Mining Weekly, Nov 2014): <http://www.miningweekly.com/article/five-mineral-value-chains-prioritised-in-south-africas-draft-beneficiation-plan-2014-11-21>. Retrieved 13 May 2016.

5 PICC (2012) A Summary of the South African National Infrastructure Plan. [http://www.gov.za/sites/www.gov.za/files/PICC\\_Final.pdf](http://www.gov.za/sites/www.gov.za/files/PICC_Final.pdf)

6 The detailed explanation of the weighted data formula is contained in Annexure A.



ay to the MQA and does not include the categories Services Incidental to Mining, Diamond Processing and Jewellery Manufacturing, thus their respective total employment numbers will not be equal.<sup>1</sup> Table 5 shows that based on DMR's data, WSPs cover over 100% of total employment in the country – while this is obviously impossible in reality, it does show that most large and medium companies in the MMS are submitting WSPs, with a statistical analysis revealing that the probability of employment coverage being as high as 95%.

**Table 5: No of companies submitting WSPs**

| ECONOMIC SECTOR | MQA/SDL-REGISTERED COMPANIES (INCL. SMALL COMPANIES) | WSPS SUBMITTED | TOTAL EMPLOYMENT (BASED ON DMR EMPLOYMENT DATA) | WSP EMPLOYMENT | WSP EMPLOYMENT COVERAGE |
|-----------------|------------------------------------------------------|----------------|-------------------------------------------------|----------------|-------------------------|
| 2012-13         | 1 539                                                | 585            | 524 873*                                        | 572 498        | 109%                    |
| 2013-14         | 1 564                                                | 573            | 509 914*                                        | 579 038        | 113%                    |
| 2014-15         | 1 682                                                | 609            | 492 936*                                        | 525 248        | 106%                    |
| 2015-16         | 1 775                                                | 634            | 455 130**                                       | 520 003        | 114%                    |

Source: DMR, MQA and DHET (31st May 2016)

\* 2012, 2013 and 2014 Annual data, respectively

\*\* Quarter 1 2016 data. DMR data does not include the categories Services Incidental to Mining, Diamond Processing and Jewellery Manufacturing, so their total employment number does not equal the total in the WSPs.

#### 1.6.1. Size and number of companies represented in the MMS

Table 6 shows the number of companies paying levies in the MMS by size.

**Table 6: Profile of MMS companies by subsector**

| SUBSECTOR                     | LARGE | MEDIUM | SMALL | TOTAL PER SUBSECTOR       |                                  |                                   |
|-------------------------------|-------|--------|-------|---------------------------|----------------------------------|-----------------------------------|
|                               |       |        |       | TOTAL NUMBER OF COMPANIES | PERCENTAGE OF COMPANIES TO TOTAL | PERCENTAGE OF EMPLOYMENT COVERAGE |
| CLAS                          | 20    | 21     | 79    | 120                       | 7%                               | 2.5%                              |
| Coal Mining                   | 42    | 17     | 88    | 147                       | 8%                               | 10.9%                             |
| Diamond Mining                | 15    | 4      | 12    | 31                        | 2%                               | 1.7%                              |
| Diamond Processing            | 1     | 5      | 6     | 12                        | 1%                               | 0.4%                              |
| Gold Mining                   | 26    | 6      | 60    | 92                        | 5%                               | 17.6%                             |
| Jewellery Manufacturing       |       | 7      | 140   | 147                       | 8%                               | 0.5%                              |
| Other Mining                  | 96    | 86     | 691   | 873                       | 49%                              | 25.0%                             |
| PGM Mining                    | 20    | 5      | 6     | 31                        | 2%                               | 33.4%                             |
| Services Incidental to Mining | 30    | 32     | 260   | 322                       | 18%                              | 8.0%                              |
| Total                         | 250   | 183    | 1 342 | 1 775                     | 100%                             | 100%                              |
| Percentage                    | 14%   | 10%    | 76%   | 100%                      |                                  |                                   |

Source: DHET (2016)

Table 6 shows that the greatest proportion (76%) of MMS companies are small employers (less than 50 employees), followed by large companies (>5 000 employees), with 14%. The highest number of large companies are involved in "Other mining" (49%), followed by Services Incidental to Mining (18%). PGMs companies employ the most people, with

<sup>1</sup> The MQA scope of coverage is includes other mining and services incidental to mining which is not covered by DMR.



33.4% employment coverage, followed by Other Mining (25%), and Gold mining (17.6%).

### 1.6.2. Geographical location of companies in the MMS

Table 7 shows the geographic location of companies in the sector. While the number of companies for some of the provinces is very high, for example Western Cape, the employment coverage is very low – in Western Cape, only 1.3% of total employment in the sector. The province has a high number of small companies, many of which are in jewellery manufacturing and design. Conversely, Limpopo has a relatively low number of companies (3.5%) but the majority are large companies and employ the second highest number of people in the country's MMS (16.7%), after North West.

**Table 7: Geographical location of MMS companies**

| PROVINCE      | TOTAL        | % OF MMS EMPLOYERS | % OF MMS EMPLOYMENT |
|---------------|--------------|--------------------|---------------------|
| Eastern Cape  | 37           | 2.1%               | 0.4%                |
| Free state    | 46           | 2.6%               | 7.0%                |
| Gauteng       | 843          | 47.5%              | 16.3%               |
| KwaZulu-Natal | 73           | 4.1%               | 2.0%                |
| Limpopo       | 62           | 3.5%               | 16.7%               |
| Mpumalanga    | 274          | 15.4%              | 12.2%               |
| North West    | 151          | 8.5%               | 35.6%               |
| Northern Cape | 100          | 5.6%               | 8.5%                |
| Western Cape  | 189          | 10.6%              | 1.3%                |
| <b>Total</b>  | <b>1 775</b> | <b>100%</b>        | <b>100%</b>         |

Source: DHET (March 2016) and MQA WSP/ATR submission 2015-16

### 1.6.3. Mining start-ups and closures

In the MMS most mining operations are large but small-scale mining also forms an important part of the sector. However, it is mainly small-scale mining entities which experience challenges with sustainability, attributed to the capital intensive nature of the industry as well as broader market dynamics. Entrepreneurs in the small, medium and artisanal mining sector therefore need to be supported so that they perform efficiently and within the codes and regulations of the sector at large. In order to mitigate these challenges, the MMS has prioritised the beneficiation of mineral resources into commercial products to try and ensure long term sustainability for small scale mining. During stakeholder engagement sessions conducted by the MQA in 2015-16, key stakeholder participants identified 4 major areas that impede sustainability: 1) Finance-related issues: obtaining finance, obtaining equipment, etc.; 2) Labour issues: health and safety and working conditions; 3) Legal and market constraints: obtaining permits, transport, tax regimes and selling arrangements; and 4) Difficulty and high cost of attracting and retaining suitably skilled people. Small companies, especially those in more rural areas, are affected the most.

## 1.7. LABOUR MARKET PROFILE

### 1.7.1. Introduction

This section is based on information in the weighted WSP/ATR submissions provided to the MQA by levy-paying companies. A total of 634 companies submitted their WSPs by 31st May 2016. The section highlights the profile of the MMS labour market in terms of total employment, provincial distribution, gender and other equity indicators.



### 1.7.2. Gender and Race

In terms of gender, Table 8 shows that 14.5% of the sector's employees are female. It also shows that females constitute the majority of employees in the Clerical Support Workers category (55%), and comprise a relatively high percentage in the Professionals (33%) and Service and Sales Workers (32.6%) categories.

In terms of race, Table 8 also shows the composition of the 4 race groups in the sector. Overall, Africans constitute the majority (83.7%) of the sector's employees followed by Whites (11.8%), Coloureds (3.8%) and Indians (0.8%). Africans constitute the majority of employees in most occupational categories, including Professionals and Technical and Associate Professionals. The one exception is the Managers category, where Africans comprise the second highest after Whites, with 32.5%.

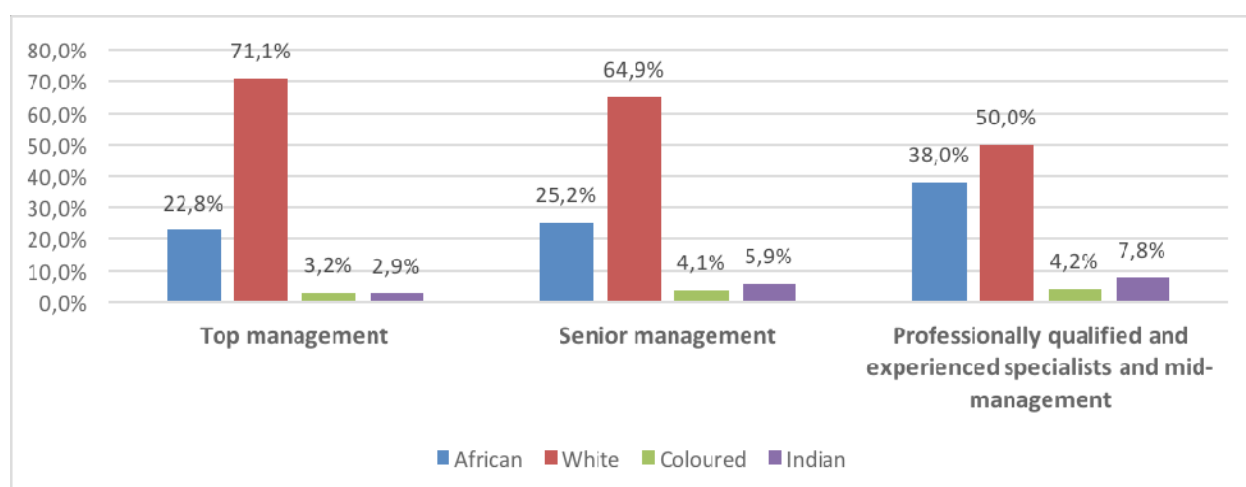
| OCCUPATIONAL CATEGORIES                                                                      | GENDER            |                    | RACE               |                   |                  |                 |
|----------------------------------------------------------------------------------------------|-------------------|--------------------|--------------------|-------------------|------------------|-----------------|
|                                                                                              | FEMALE            | MALE               | AFRICAN            | WHITE             | COLOURED         | INDIAN          |
| Managers                                                                                     | 2 477<br>(18.5%)  | 10 920<br>(81.5%)  | 4 340<br>(32.4%)   | 7 704<br>(57.5%)  | 649<br>(4.8%)    | 704<br>(5.3%)   |
| Professionals                                                                                | 8 490<br>(33.0%)  | 17 201<br>(67.0%)  | 14 020<br>(54.6%)  | 9 486<br>(36.9%)  | 1 351<br>(5.3%)  | 833<br>(3.2%)   |
| Technicians and Associate Professionals                                                      | 8 479<br>(14.6%)  | 49 398<br>(85.4%)  | 37 922<br>(65.5%)  | 16 892<br>(29.2%) | 2 448<br>(4.2%)  | 615<br>(1.1%)   |
| Clerical Support Workers                                                                     | 11 880<br>(55.0%) | 9 702<br>(45.0%)   | 13 564<br>(62.8%)  | 5 843<br>(27.1%)  | 1 711<br>(7.9%)  | 465<br>(2.2%)   |
| Service and Sales Workers                                                                    | 2 244<br>(32.6%)  | 4 642<br>(67.4%)   | 5 861<br>(85.1%)   | 729<br>(10.6%)    | 263<br>(3.8%)    | 33<br>(0.5%)    |
| Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers (Artisan category) | 3 326<br>(8.3%)   | 36 623<br>(91.7%)  | 22 633<br>(56.7%)  | 13 559<br>(33.9%) | 3 422<br>(8.6%)  | 335<br>(0.8%)   |
| Plant and Machine Operators and Assemblers                                                   | 14 575<br>(6.7%)  | 201 670<br>(93.3%) | 205 078<br>(94.8%) | 3 839<br>(1.8%)   | 6 801<br>(3.1%)  | 526<br>(0.2%)   |
| Elementary Occupations                                                                       | 20 202<br>(15.8%) | 107 333<br>(84.2%) | 122 628<br>(96.2%) | 2 409<br>(1.9%)   | 2 160<br>(1.7%)  | 337<br>(0.3%)   |
| Learners                                                                                     | 3 777<br>(34.8%)  | 7 064<br>(65.2%)   | 9 054<br>(83.5%)   | 952<br>(8.8%)     | 777<br>(7.2%)    | 58<br>(0.5%)    |
| Total                                                                                        | 75 450<br>(14.5%) | 444 553<br>(85.5%) | 435 100<br>(83.7%) | 61 414<br>(11.8%) | 19 582<br>(3.8%) | 3 907<br>(0.8%) |

Source: Calculated from Weighted MQA WSP/ATR Submission (2016)

Upon closer analysis of the different management levels, Figure 4 reveals that Whites comprise 71.1% of top management, 64.9% of senior management, and half (50%) of mid management. Africans comprise the second highest in all 3 categories, the highest proportion (38%) being in mid management.



**Figure 5: Management levels by race**

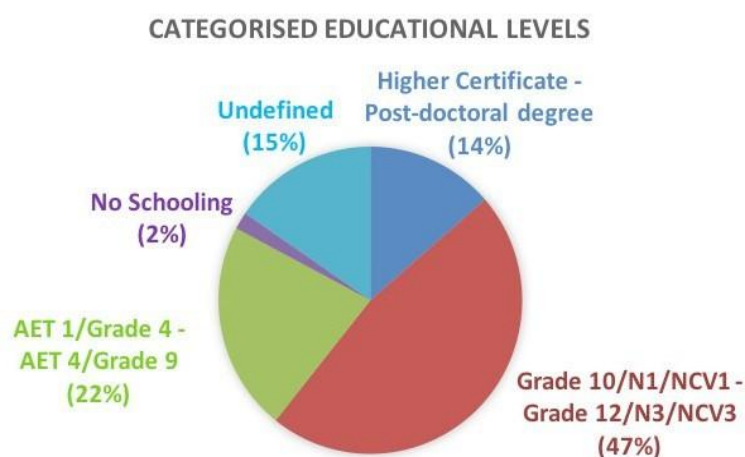


Source: Calculated from Weighted MQA WSP/ATR Submission (2016)

### 1.7.3. Education and skills levels

With regard to education, analysis of the weighted WSP submissions revealed that the highest proportion of employees (29.9%) in the sector have achieved the equivalent of Grade 12 (including Nated 3 and NCV 3), followed by Grade 11 (10.8%). Grouping the many educational levels into 4 broad categories showed that the highest proportion of the sector's employees (47%) have achieved the equivalent of upper high school levels (Grades 10-12), depicted in Figure 5, followed by 22% of the sector with Grades 4-9 as their highest level of education. Of the 1.8% of the sector's employees who have no schooling at all, 73.8% are South African citizens and 90.5% fall into the categories Plant and Machine Operators and Assemblers and Elementary Occupations.

**Figure 6: Employment by education level**



Source: Calculated from Weighted MQA WSP/ATR Submission (2016)



#### 1.7.4. The status, evolution and trends of employment in the MMS

Table 9 provides a 5-year trend analysis of employment in the MMS for the period 2012-2016.

**Table 9: Employment trends in the MMS**

|                                  |                            |                     |                    |                    |                    |                    | PERCENTAGE<br>CHANGE<br>FROM 2012 TO<br>2016 |        |
|----------------------------------|----------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|----------------------------------------------|--------|
| TOTAL EMPLOYMENT IN MMS          |                            | 2012                | 2013               | 2014               | 2015               | 2016               |                                              |        |
| Total Employment                 |                            | 628 750             | 572 518            | 575 768            | 525 247            | 520 003            | -17.3%                                       |        |
| Provincial<br>Distribution       | Eastern Cape               | 1 160<br>(0.2%)     | 2 023<br>(0.4%)    | 2 647<br>(0.5%)    | 2 170<br>(0.4%)    | 1 889<br>(0.4%)    | +62.8%                                       |        |
|                                  | Free State                 | 42 485<br>(6.8%)    | 46 037<br>(8.0%)   | 44 316<br>(7.7%)   | 40 545<br>(7.7%)   | 36 378<br>(7.0%)   | -14.4%                                       |        |
|                                  | Gauteng                    | 119 330<br>(19.0%)  | 145 546<br>(25.4%) | 123 795<br>(21.5%) | 96 802<br>(18.4%)  | 84 559<br>(16.3%)  | -29.1%                                       |        |
|                                  | KwaZulu-Natal              | 12 771<br>(2.0%)    | 10 382<br>(1.8%)   | 11 079<br>(1.9%)   | 11 616 (2.2%)      | 10 669<br>(2.1%)   | -16.5%                                       |        |
|                                  | Limpopo                    | 91 648<br>(14.6%)   | 77 121<br>(13.5%)  | 90 425<br>(15.7%)  | 82 373<br>(15.7%)  | 86 680<br>(16.7%)  | -5.4%                                        |        |
|                                  | Mpumalanga                 | 103 234<br>(16.4%)  | 70 535<br>(12.3%)  | 74 309<br>(12.9%)  | 90 289<br>(17.2%)  | 63 219<br>(12.2%)  | -38.8%                                       |        |
|                                  | North West                 | 220 527<br>(35.1%)  | 190 601<br>(33.3%) | 195 840<br>(34.0%) | 165 213<br>(31.5%) | 185 352<br>(35.6%) | -16.0%                                       |        |
|                                  | Northern Cape              | 31 555<br>(5.0%)    | 24 672<br>(4.3%)   | 27 698<br>(4.8%)   | 31 126<br>(5.9%)   | 44 329<br>(8.5%)   | +40.5%                                       |        |
|                                  | Western Cape               | 6 040<br>(1.0%)     | 5 581<br>(1.0%)    | 5 658<br>(1.0%)    | 5 114<br>(1.0%)    | 6 928 (1.3%)       | +14.7%                                       |        |
|                                  | Totals                     | 628 750             | 572 498            | 575 768            | 525 248            | 520 003            |                                              |        |
|                                  | Sub-sector<br>Distribution | CLAS                | 45 780<br>(7.3%)   | 17 256<br>(3.0%)   | 14 298<br>(2.5%)   | 13 449<br>(2.6%)   | 13 162<br>(2.5%)                             | -71.2% |
|                                  |                            | Coal mining Diamond | 76 912<br>(12.1%)  | 62 864<br>(11.0%)  | 62 913<br>(10.9%)  | 87 389<br>(16.6%)  | 56 930<br>(10.9%)                            | -26.0% |
|                                  |                            | mining Diamond      | 11 963<br>(1.9%)   | 11 216<br>(2.0%)   | 9 900<br>(1.7%)    | 16 286<br>(3.1%)   | 8 974<br>(1.7%)                              | -25.0% |
| Processing Gold                  |                            | 1 965<br>(0.3%)     | 1 372<br>(0.2%)    | 6 557<br>(1.1%)    | 989<br>(0.2%)      | 1 849<br>(0.4%)    | -5.9%                                        |        |
| mining Jewellery                 |                            | 151 382<br>(24.1%)  | 156 771<br>(27.4%) | 138 237<br>(23.9%) | 118 285<br>(22.5%) | 91 357<br>(17.6%)  | -39.7%                                       |        |
| Manufacturing                    |                            | 2 589<br>(0.4%)     | 1 104<br>(0.2%)    | 902<br>(0.2%)      | 1 074<br>(0.2%)    | 2 802<br>(0.5%)    | +8.2%                                        |        |
| Other mining                     |                            | 68 225<br>(10.9%)   | 101 871<br>(17.8%) | 108 277<br>(18.7%) | 107 969<br>(20.6%) | 129 829<br>(25.0%) | +90.3%                                       |        |
| PGM mining                       |                            | 189 437<br>(30.1%)  | 175 579<br>(30.7%) | 185 339<br>(32.0%) | 144 690<br>(27.5%) | 173 592<br>(33.4%) | -8.4%                                        |        |
| Services incidental<br>to mining |                            | 80 497<br>(12.8%)   | 44 485<br>(7.8%)   | 36 571<br>(6.3%)   | 35<br>117 (6.7%)   | 41 509<br>(8.0%)   | -48.4%                                       |        |
| Totals                           |                            | 628 750             | 572 518            | 562 994*           | 525 248            | 520 003            |                                              |        |



| TOTAL EMPLOYMENT IN MMS                 |                                              | 2012               | 2013               | 2014               | 2015               | 2016               | PERCENTAGE<br>CHANGE<br>FROM 2012 TO<br>2016 |
|-----------------------------------------|----------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------------------------------|
| Gender<br>Distribution                  | Male                                         | 559 470<br>(89.0%) | 503 974<br>(88.0%) | 506 676<br>(88.0%) | 454 663<br>(86.6%) | 444 553<br>(85.5%) | -20.5%                                       |
|                                         | Female                                       | 69 280<br>(11.0%)  | 68 544<br>(12.0%)  | 89 092<br>(12.0%)  | 70 585<br>(13.4%)  | 75 450<br>(14.5%)  | +8.9%                                        |
|                                         | Totals                                       | 628 750            | 572 518            | 575 768            | 525 248            | 520 003            |                                              |
| Equity<br>Distribution                  | African                                      | 529 635<br>(84.2%) | 485 210<br>(84.8%) | 486 524<br>(84.5%) | 441 699<br>(84.1%) | 435 100<br>(83.7%) | -17.8%                                       |
|                                         | Coloured                                     | 14 997<br>(2.4%)   | 13 763<br>(2.4%)   | 11 515 (2.0%)      | 15 352<br>(2.9%)   | 19 582<br>(3.8%)   | +30.6%                                       |
|                                         | Indian                                       | 3 167<br>(0.5%)    | 2 855<br>(0.5%)    | 2 879<br>(0.5%)    | 2 832<br>(0.5%)    | 3 907<br>(0.8%)    | +23.4%                                       |
|                                         | White                                        | 80 951<br>(12.9%)  | 70 690<br>(12.3%)  | 69 092<br>(12.0%)  | 65 365<br>(12.4%)  | 61 414<br>(11.8%)  | -24.1%                                       |
|                                         | Totals                                       | 628 750            | 572 518            | 575 768            | 525 248            | 520 003            |                                              |
| Occupational<br>Group<br>Distribution   | Managers                                     | 17 643<br>(2.8%)   | 14 677<br>(2.6%)   | 13 359<br>(2.3%)   | 14 165<br>(2.7%)   | 13 397<br>(2.6%)   | -24.1%                                       |
|                                         | Professionals                                | 26 852<br>(4.3%)   | 26 379<br>(4.6%)   | 25 749<br>(4.5%)   | 26 601<br>(5.1%)   | 25 691<br>(4.9%)   | -4.3%                                        |
|                                         | Technicians<br>& Associate<br>Professionals  | 70 254<br>(11.2%)  | 60 864<br>(10.6%)  | 68 688<br>(11.9%)  | 61 145<br>(11.6%)  | 57 877<br>(11.1%)  | -17.6%                                       |
|                                         | Clerical Support<br>Workers                  | 27 299<br>(4.3%)   | 23 152<br>(4.0%)   | 23 596<br>(4.1%)   | 22 315<br>(4.2%)   | 21 582<br>(4.2%)   | -20.9%                                       |
|                                         | Service & Sales<br>Workers                   | 7 125<br>(1.1%)    | 6 322<br>(1.1%)    | 6 488<br>(1.1%)    | 6 419<br>(1.2%)    | 6 885<br>(1.3%)    | -3.4%                                        |
|                                         | Trades category                              | 34 315<br>(5.5%)   | 36 985<br>(6.5%)   | 38 238<br>(6.6%)   | 39 678<br>(7.6%)   | 39 949<br>(7.7%)   | +16.4%                                       |
|                                         | Plant & Machine<br>Operators &<br>Assemblers | 264 952<br>(42.1%) | 244 335<br>(42.7%) | 238 765<br>(41.5%) | 213 412<br>(40.6%) | 216 245<br>(41.6%) | -18.4%                                       |
|                                         | Elementary<br>occupations                    | 172 699<br>(27.5%) | 150 614<br>(26.3%) | 150 201<br>(26.1%) | 131 172<br>(25.0%) | 127 534<br>(24.5%) | -26.2%                                       |
|                                         | Learners                                     | 7 611<br>(1.2%)    | 9 190<br>(1.6%)    | 10 684<br>(1.9%)   | 10 341<br>(2.0%)   | 10 841<br>(2.1%)   | +42.4%                                       |
| Totals                                  |                                              | 628 750            | 572 518            | 575 768            | 525 248            | 520 003            |                                              |
| Disability Distribution                 |                                              | 4 843 (0.8%)       | 4 450 (0.8%)       | 4 924 (0.9%)       | 3 815 (0.7%)       | 4 864 (0.9%)       | +0.4%                                        |
| Management by<br>Equity<br>distribution | African                                      | 5 377<br>(30.5%)   | 4 005<br>(37.0%)   | 3 913<br>(29.4%)   | 4 315<br>(30.5%)   | 4 340<br>(32.4%)   | -19.3%                                       |
|                                         | Coloured                                     | 692 (3.9%)         | 299 (2.8%)         | 490 (3.7%)         | 586 (4.1%)         | 649 (4.8%)         | -6.2%                                        |
|                                         | Indian                                       | 595 (3.4%)         | 288 (2.7%)         | 591 (4.4%)         | 649 (4.6%)         | 704 (5.3%)         | +18.3%                                       |
|                                         | White                                        | 10 979<br>(62.2%)  | 6 235<br>(57.6%)   | 8 312<br>(62.5%)   | 8 614<br>(60.8%)   | 7 704<br>(57.5%)   | -29.8%                                       |
| Total in management                     |                                              | 17 643             | 10 827             | 13 306             | 14 164             | 13 397             |                                              |

Source: Calculated from Weighted MQA WSP/ATR Submission (2012-2016)

\* In the 2014 report, the subsector field was left blank for 12 774 employees, thus why the subsector employment total does not equal total employment in the sector for that year (575 768).



Table 9 shows that the most significant changes and trends over the past 5 years occurred in the following categories:

- Total employment in the MMS has been declining over the years. As of 31st May 2016, the MMS employs an estimated 520 003, which is a 1% decrease from 2015, and a 17.3% drop since 2012.
- Mpumalanga, Gauteng, North West and Free State's employment numbers have been declining steadily, by 38.8%, 29.1%, 16% and 14.4% respectively between 2012 and 2016. The biggest growth has been seen in Northern Cape, whose employment numbers have been increasing steadily, by 40.5% in the same 5-year period.
- In terms of subsector employment, most subsectors have experienced significant declines in employment numbers since 2012, the biggest being CLAS with a 71.2% drop between 2012 and 2016, followed by Services Incidental to Mining with a 48.4% drop and Gold with a 39.7% drop. Other Mining has shown a relatively large increase, growing by 90.3% in the same 5-year period.
- A review of employment by occupational categories shows that the 3 biggest decreases in employment numbers are found in the Elementary occupations, with a 26% decrease since 2012, Managers, with a 24.1% decrease, and Plant and Machine Operators & Assemblers, with an 18.4% decrease between 2012 and 2016.
- Although the sector is historically male-dominated, the proportion of females has been increasing gradually, from 11% in 2012, to 14.5% in 2016.
- The overall composition of employees by race shows that Africans have been, and continue to be, the dominant group in the MMS. In 2016 the total employment number of Africans decreased by 1.5% from 2015, with the biggest decline being in the Service and Sales Workers category, with a 7.46% drop. There was a 6% decrease in White employment, with the biggest decline being in the Managers category, with a 10.56% drop between 2015 and 2016. Coloured employment experienced a large jump in numbers from 2015 to 2016 compared to the previous 4 years, with the largest increase being in the Artisan category, at 62.7%. The Indian group is consistently the least represented in the MMS constituting less than 1%, although the numbers increased by 38% from 2015 to 2016.
- In terms of management by equity, there has been an overall increase in management of Africans, Coloureds and Indians. In 2012, these 3 race groups together constituted 37.7% of management, to the highest proportion across the 5 years in 2016, with 42.5% of management.
- People with disabilities have consistently represented less than 1% of the total MMS sector labour force since 2012.

#### **1.7.5. Implications of Findings for Skills Development**

The main implications for skills development in the sector are summarised below:

- There has been a decrease in employment figures over the last few years, with retrenchments remaining a foreseeable reality. The MQA and other role players need to prioritise the reskilling of retrenched workers so that they can be absorbed into other sectors of the formal labour market.
- There is an urgent need to monitor and implement Mining Phakisa, the 3 SIPs projects related to the MMS as well as mineral beneficiation as they each have great potential to create much-needed jobs. Relevant skills for these initiatives need to be developed.
- There are still racial and gender disparities in the demographic composition of the industry signalling the need for role-players to continue to address workforce imbalances. The MQA might need to consider a reallocation of the discretionary grant to support industry to increase the uptake and throughput of historically disadvantaged individuals, particularly women and HDSAs in top and senior management levels, in their training and skills development pipeline.



## 1.8. SUMMARY AND CONCLUSION

This chapter revealed that South Africa is an important hub in the global mining value chain. However, the sector is currently facing some challenges which include:

- The sector's contribution to GDP has been decreasing over the last few years, from 8.5% in 2009 to 7.6% in 2016.
- There has been a decrease in number of people employed from a peak of 628 750 in 2012 to 520 003 in 2016.
- It has been concluded that the short to long term outlook of the sector would be improved if the sector monitors the developments of Mining Phakisa and prepares existing and potential employees accordingly; as well as takes advantage of the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to lead to increased economic activity and the creation of new jobs in South Africa.
- The MQA and other role players need to pay special attention to the reskilling of retrenched workers so that they can be absorbed into other sectors of the formal labour market.
- There are still demographic disparities in the gender and management by equity compositions of the industry signalling the need for MQA and other role players to continue to address workforce imbalances.



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## 2. KEY SKILLS ISSUES

### INTRODUCTION

This chapter is concerned with identifying factors that are driving change in the MMS and which impact on skills demand and supply. It offers an analysis of their implications for skills development. Secondly, the chapter provides an analysis of the alignment of MQA's SSP to national strategies and plans such as the National Skills Development Strategy as well as those specific to the MMS such as the Minerals and Petroleum Resources Development Act.

### 2.1 CHANGE DRIVERS

There are numerous factors that impact on skills development in the MMS, including economic, social, technological, environmental and legislative. The influence of the drivers on the sector is important, particularly their impact on skills development. Some of the change drivers are non-sector specific, meaning they are not directly related to the sector but exert change in the broader environment in which the sector operates. All change drivers discussed have direct implications for skills development in the MMS, and are listed in no particular order.

#### 2.1.1 Technology

Technological change remains at the forefront of the sector's ability to become as safe, healthy efficient and sustainable as possible. New, sophisticated technologies are transforming the sector's operations. As a result, the type, level and mix of skills required is starting to change, affecting occupations including Rock Drill Operator, Blaster, Drill Rig Operator as well as most of the artisan trades. Upskilling and re-skilling programmes are needed so that employees are trained in new mining processes that will extend the lifespans of mines. TVET Colleges are for the most part not up-to-date with latest technology therefore many skills may need to be developed on the job.

As mentioned in chapter 1, the Mining Phakisa initiative aims to expand the lifespan of some of the mines by developing locally the machinery required to mine narrow, hard rock reefs, which is where the majority of platinum and gold resources lie in South Africa but which are currently unviable to mine due to safety, health and economic reasons. Job sustainability is a high priority of the initiative, with the intention that jobs in mining will be sustained through access to currently unmineable resources. R&D is currently underway to develop the machinery locally, and it will be crucial for the MQA to stay abreast of these developments as the time-frame goals are relatively short: 5 years for remote drill-and-blast mechanisation and 10 years for 24/7 mechanisation. In terms of skills development, upskilling training drives will be required for all skills levels of workers, including managers and supervisors, to ensure a smooth transition to mechanisation. A focus on AET programmes up to level 4 as a way of improving literacy and numeracy levels will be important to prepare existing and potential employees to operate new machinery and coordinate new processes. Research still needs to be conducted on the potential impact of new mechanised methods on various skills, and the training that will be required for each to adapt accordingly.

#### 2.1.2 Global demand

Many subsectors in the MMS are experiencing significant decline in growth owing to decreased global demand for their commodities (in particular, platinum, iron ore, chrome and manganese), with many operations downscaling or closing down as a result. Retrenchments are an ongoing reality so skills are re-entering the market. Portable skills training has become a necessity for those who are not re-absorbed in the MMS and must be made a priority by the MQA.



### **2.1.3 Occupational Health and Safety**

Mining operations come with inherent risks that can impact the health and safety of employees. There has been a decrease in mining injuries and fatalities, with total fatalities decreasing sharply from a peak of 744 per annum in 1989 to 77 in 2015. Mining companies, government and unions need to continue to place importance on employee safety since continued fatalities, injuries and occupational diseases jeopardise a company's licence to operate. The MQA must also continue its support of OHS skills development by increasing human resources supply in areas critical to OHS.

### **2.1.4. Mining Charter and Employment equity**

The Mining Charter stipulates that mining companies must be at least 26% black-owned to qualify for mining and prospecting rights. Companies are required to comply with social, labour and community objectives such as procurement spend with BEE entities. Failure to comply with the Charter could result in permits or mining rights being revoked. Companies situated in remote areas find it difficult to comply owing to their locations. The stakeholder engagements revealed the need for training and support to small businesses in remote areas which can service the mines. The MQA's response is to continue to prioritise mentorship and entrepreneurship development.

Employment equity (HDSAs, women and people with disabilities) is another high priority change driver. The current Mining Charter (2010) stipulates that there should be at least 40% participation in HDSAs in management positions. While chapter 1's labour market profile indicates that this target is being met (42.65%), stakeholders in most provinces stated that HDSAs are underrepresented at more senior management levels. However, it was also advised that HDSAs with senior management experience are hard to find. Internal development is often challenging as it takes a long time and an investment in costs, with head-hunting and/or migration to other provinces/sectors being a common eventuality. The MQA supports programmes such as the Management Development Programme (MDP) which is aimed at addressing this challenge.

In April 2016 a draft new Mining Charter with new targets was gazetted by the DMR. The proposed targets are considerably higher, in particular where black females in senior management are concerned. Owing to the nature of the sector, regional stakeholders around the country consistently emphasised the difficulties which mining companies have always faced where the employment of females is concerned. While these targets are currently still being discussed between stakeholders at the highest levels, and therefore are not yet finalised, it will be important for the MQA to begin strategic discussions and planning around possible outcomes, in order to support industry to achieve any new transformation targets if and when it happens.

### **2.1.5 Mineral beneficiation**

The mining industry value chain has been prioritised as an economic growth node in the New Growth Path, which highlights a path for the MMS out of its depression until 2020. The Minerals Beneficiation Strategy is aimed at encouraging the country to move from the sale of commodities to value-added products. The government is currently drafting the Mineral Beneficiation Action Plan (MBAP), which seeks to advance "local value-addition across five mineral value-chains, namely; iron-ore and steel, platinum-group metals, polymers, titanium and mining inputs". The implementation of the strategy is expected to create and retain much needed jobs in the MMS. However, while mineral beneficiation has the potential to transform the industry, regional stakeholders believe that not much is being done to implement numerous undertakings in the past few years. Regional stakeholders expressed the importance of implementing efforts to beneficiate the country's minerals and metals, especially during an economic downturn. The MQA needs to maintain strong relationships with government departments involved in this, to understand its role in responding to any resulting skills needs.



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### **2.1.6 Environmental sustainability**

The industry is becoming more conscious of the growing need to protect the environment, with increased enforcement of legislation and consumer pressure driving the demand for eco-compliance. Skilled workers will be required in energy efficiency and sourcing of 'green' products and services and managing 'green' supply chains. Alternative sources of energy are also being prioritised owing to the increasing costs of electricity which impact production and profitability.

### **2.1.7 Community and youth development**

Community unrest occurs in mining communities when local skills are not being used for jobs, and when the youth cannot find jobs elsewhere. Unrest can lead to disruptions in business operations and a resulting decline in productivity. Regional stakeholders in all provinces advised that training of local skills in communities is hindered by the low levels of Maths and Science, and general basic education. The MMS particularly in Limpopo, Mpumalanga, Free State and Eastern Cape has recently faced rising community unrest and disruption to production. The MQA has been encouraged by stakeholders to include community leaders at all regional engagements, and to increase access to Maths, Science and bridging programmes.

### **2.1.8. Labour market (supply of skills)**

Regional stakeholders in most provinces advised that certain occupations in the MMS are not attracting as much interest from the youth as in the past. A large factor is understood to be the unattractive shift hours. This relates to Boilermaker, Rigger, Diesel Mechanic, Rock Drill Operator, Drill Rig Operator and Mechanical Loader Operator. There is also a concern that career awareness initiatives do not adequately portray some of the MMS occupations, leading to misperceptions and/or disinterest from potential learners. This may lead to a situation whereby some or all of these occupations become scarce to employers. MQA's career awareness initiatives have the potential to address these concerns.

### **2.1.9. Small enterprise development**

Enterprise development supports the notion that Small, Medium and Micro-sized Enterprises (SMMEs) should build sustainable business models given that the gestation period for success in the MMS is long. Enterprise development creates employment growth opportunities. The MQA Funding Policy for 2016-17 calls for the grant allocations to take into account SMMEs (companies employing less than 50 employees). The MQA will assist SMMEs with research and development of appropriate technologies, and by providing training and support so that development is sustainable. There is potential for the smaller mining provinces to grow given the mineral deposits that have been discovered and the prospective and mining rights applications which have been lodged with DMR in recent months. Some of these companies may require development in business management skills to ensure sustainability.

## **2.2 ALIGNMENT OF NATIONAL STRATEGIES AND PLANS**

Each SETA is required to develop an SSP Update within the framework of the National Skills Development Strategy (NSDS) III as prescribed by the Skills Development Act of 1988, Section 10 as amended (2008). Sector skills planning in South Africa must take into account a wide range of national policy imperatives that seek to support inclusive sector growth paths that advance economic growth and the social development and transformation agenda. Table 10 summarises the national policies which guide the strategy and operations of the MQA.





**Table 10: Alignment of the MQA Strategic Plan to Government National Policies and Strategies**

| POLICY ALIGNMENT TO THE MMS                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POLICY / ACT                                                                                        | POLICY INPUT RELEVANT TO THE MMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | POLICY IMPLICATIONS ON SKILLS PLANNING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| National Skills Development Strategy III (NSDS) 2011-2016<br>(Published in (2011))                  | <ul style="list-style-type: none"> <li>Establish a credible institutional mechanism for skills planning</li> <li>Increase access to occupationally-directed programmes.</li> <li>Address the low-level youth and adult numeracy skills to enable additional training.</li> <li>Encourage better use of workplace based skills development.</li> <li>Promote the growth of a public TVET college system that is responsive to sectoral, local, regional and national skills needs and priorities</li> <li>Encourage and support small enterprises, worker initiatives, NGO and community training initiatives</li> <li>Build career guidance and vocational guidance</li> </ul> | <p>The MQA:</p> <ul style="list-style-type: none"> <li>Uses SSPs and other research projects to inform skills planning and decision-making.</li> <li>Increases access to workplace experience for learners.</li> <li>Increases access to internships in the MMS for university graduates.</li> <li>Has conducted research into the training of small mining enterprises.</li> <li>Has partnerships in place with 6 TVET Colleges for capacitation and accreditation purposes.</li> <li>Facilitates workplace experience for TVET College lecturers.</li> <li>Facilitates and funds HDSA Lecturer development.</li> <li>Provides mentorship programmes for small businesses.</li> <li>Provides career guidance by convening events at regional career expos and high schools.</li> <li>Funds Maths and Science interventions for grade 10, 11 and 12 learners.</li> </ul> |
| National Development Plan (NDP) 2014<br>(Published 2014)                                            | <ul style="list-style-type: none"> <li>Improve education and training</li> <li>Expand skills base through better education and vocational training.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>The MQA funds learnerships, workplace placement and internships, rural Development, bursaries – aimed at creating a pool of HET graduates to pursue careers in the MMS, and collaborates with TVET colleges.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Human Resources Development Strategy for South Africa (HRDS-SA)<br>(Published 2010)                 | <ul style="list-style-type: none"> <li>Accelerate training in the priority areas including artisanship.</li> <li>To leverage public and private sector programmes to create employment opportunities and work experience for new entrants into the labour market.</li> <li>Improve coverage and efficacy of vocational guidance</li> </ul>                                                                                                                                                                                                                                                                                                                                     | <p>The MQA has the following projects/programmes aligned to the HRDSSA:</p> <ul style="list-style-type: none"> <li>TVET collaboration, Artisan development, Bursaries, Internships</li> <li>Career and Pathway Guidance Project</li> <li>Mathematics and Science Project</li> <li>AET Grant, Foundational Learning Competency Grant Incentive</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Industrial Policy Action Plan. (IPAP) 2013-2016<br>(Published 2013)                                 | <ul style="list-style-type: none"> <li>IPAP has identified several growth sectors which will address the high rate of unemployment in the country.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Mineral beneficiation, diamond processing and jewellery manufacturing as one of the MMS segments which will address the high rate of unemployment in the country. Funding for learnerships made available in this regard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| National Growth Path (NGP) 2010<br>(Published 2010)<br>& National Skills Accord<br>(Published 2010) | <ul style="list-style-type: none"> <li>Improve job creation. Key targets set at the NGP launch 140 000 additional direct jobs in mining only, by 2020</li> <li>Increase funding for and quality of training</li> <li>Align training to the New Growth Path and improve SSPs</li> <li>Improve the role and performance of TVET colleges</li> </ul>                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Rural development programmes</li> <li>Partnerships in place with 6 TVET Colleges for capacitation and accreditation purposes.</li> <li>Workplace experience for TVET College lecturers.</li> <li>Workplace experience funded for learners.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| White Paper-Post School Education Training (WP-PSET)<br>(Published 2013)                            | <ul style="list-style-type: none"> <li>Improve the capacity of post-school education and training system to meet SA's needs.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Partnerships in place with 6 TVET Colleges for capacitation and accreditation purposes.</li> <li>Workplace experience for TVET College lecturers.</li> <li>Workplace experience funded for learners</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| POLICY ALIGNMENT TO THE MMS                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POLICY / ACT                                                                                                    | POLICY INPUT RELEVANT TO THE MMS                                                                                                                                                                                                                                                                                                                          | POLICY IMPLICATIONS ON SKILLS PLANNING                                                                                                                                                                                                                                                                                                                                                                                                              |
| Youth Employment Accord (YEA) 2013 (Published 2013)<br>& National Youth Policy (NYP) 2015-2020 (Published 2015) | <ul style="list-style-type: none"> <li>• Improve education and training opportunities for the gap between school-leaving and first employment.</li> <li>• Connect young people with employment opportunities, through job placement schemes and work readiness promotion programmes for young school leavers.</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Rural development projects</li> <li>• Support learners on core learnerships (non-Artisan) for the MMS.</li> <li>• MQA partners with the private sector to increase access to workplace experience</li> <li>• The career guidance initiatives by the MQA in schools and colleges will provide leverage for an informed youth prepared to enter the workforce.</li> </ul>                                    |
| Mid-Term Strategic Framework (MTSF) 2014-2019 (Published 2014)                                                  | <ul style="list-style-type: none"> <li>• Improve the quality of and access to education and training</li> <li>• Ensure quality healthcare and social security for all citizens.</li> <li>• Encourage and support cooperatives, small enterprises, workers initiated, NGO and community training initiatives.</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Train 40 000 Occupational Health Safety Representatives over five years starting in 2008 (recent data unavailable)</li> <li>• Facilitate the development of scarce artisan occupational skills in the MMS.</li> <li>• Develop learning packs, learning materials for TVET and HET programmes</li> <li>• Support learners on core learnerships (non-Artisan) for the MMS.</li> </ul>                        |
| Skills Development Act (SDA) (Published 1998)                                                                   | <ul style="list-style-type: none"> <li>• Increase the quality and quantity of artisans</li> </ul>                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Facilitates the development of scarce or hard-to-fill artisan occupational skills in the MMS.</li> </ul>                                                                                                                                                                                                                                                                                                   |
| Mineral and Petroleum Resources Development Act (MPRDA) (Published 2002)                                        | <ul style="list-style-type: none"> <li>• Promote employment and advance the social and economic welfare of all South Africans and production operations;</li> <li>• Ensure holders of mining and production rights contribute to the socio-economic development of their areas</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>• The MQA provides learnerships and workplace placement for unemployed youth.</li> <li>• Rural Development</li> <li>• Bursaries –aimed at creating a pool of HET graduates to pursue careers in the MMS.</li> <li>• Collaboration with TVETs and HETs.</li> </ul>                                                                                                                                            |
| Mining Health & Safety Act (MHSA) (Published 1996)                                                              | <ul style="list-style-type: none"> <li>• To promote training in mine health and safety</li> </ul>                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• MQA funds and supports training programmes for mine Health and Safety</li> <li>• MQA regulates and accredits curricula on Mining Health and Safety programmes.</li> <li>• Supports the MHS' objectives through transformative skills development initiatives.</li> </ul>                                                                                                                                   |
| Mining Charter (Published 2010)                                                                                 | <ul style="list-style-type: none"> <li>• Meaningfully expand opportunities for HDSAs.</li> <li>• Utilise and expand the skills base of HDSAs.</li> <li>• Promote employment and advance the social and economic welfare of mining communities and labour-sending areas</li> <li>• Promote beneficiation of South Africa's mineral commodities.</li> </ul> | <ul style="list-style-type: none"> <li>• The MQA provides learnerships and workplace placement for unemployed youth.</li> <li>• Rural Development –including Maths &amp; Science and literacy programmes</li> <li>• Career guidance</li> <li>• Bursaries –aimed at creating a pool of HET graduates to pursue careers in the MMS.</li> <li>• Artisan development – the MQA has in place initiatives to develop artisans and other trades</li> </ul> |

Source: MQA Strategic Plan 2015-2016

## CONCLUSION

The 5 main “key skills issues” impacting the MMS are Technology and Mining Phakisa, Global demand, Mining Charter and Employment equity, Occupational Health and Safety (OHS) and Mineral beneficiation. Proper implementation of the national and MMS-specific strategies by the MQA and other mining stakeholders will provide correct and relevant strategies in addressing these change drivers.



## 3. EXTENT OF SKILLS MISMATCH

### 3.1. INTRODUCTION

Having profiled the sector, the people employed within it, and the key issues driving change, this chapter focuses primarily on understanding the demand for, and supply of skills, as well as occupation-specific skills mismatches for employers in the sector. The issue of skills gaps in the sector will also be addressed.

### 3.2. EXTENT AND NATURE OF DEMAND

Demand for skills refers to the employers' needs for skills in the sector. Employees in the Plant and Machine Operators and Assemblers category constitute 41.6% of total employment in the MMS.

#### 3.2.1. Occupational vacancies

Table 11 shows the vacancies by occupational category. Vacancy intensity (rate) refers to the number of vacancies as a percentage of the total employment within the occupational category. While the data indicates that there are no serious shortages, the categories that have among the highest number of vacancies are the Artisans (1.42%), Professionals (1.16%) and Managers (0.85%).

**Table 11: Occupational vacancies by category**

| OCCUPATIONAL CATEGORY (OFO) |                                                                                              | NUMBER OF<br>VACANCIES | NUMBER<br>EMPLOYED | VACANCY<br>INTENSITY (RATE) |
|-----------------------------|----------------------------------------------------------------------------------------------|------------------------|--------------------|-----------------------------|
| GROUP                       | TITLE                                                                                        |                        |                    |                             |
| 1                           | Managers                                                                                     | 114                    | 13 397             | 0.85%                       |
| 2                           | Professionals                                                                                | 297                    | 25 691             | 1.16%                       |
| 3                           | Technicians and Associate Professionals                                                      | 245                    | 57 877             | 0.42%                       |
| 4                           | Clerical Support Workers                                                                     | 21                     | 21 582             | 0.10%                       |
| 5                           | Service and Sales Workers                                                                    | 10                     | 6 885              | 0.15%                       |
| 6                           | Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers (Artisan category) | 568                    | 39 949             | 1.42%                       |
| 7                           | Plant and Machine Operators and Assemblers                                                   | 1 053                  | 216 245            | 0.49%                       |
| 8                           | Elementary Occupations                                                                       | 47                     | 127 534            | 0.04%                       |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2016

#### 3.2.2. Hard-to-fill occupations

Hard-to-fill occupations refer to occupations which employers struggle to find candidates for, for a sustained period of time, not because there is a scarcity in the country, but rather owing to other reasons, such as:

- Geographic location - many of the MMS's employers are situated in remote areas, which may not produce the talent required locally, and which employers may also struggle to attract from elsewhere. This could lead to the need to incentivise candidates with high salaries.
- Employment equity – in some cases, vacancies are hard to fill because of a lack of skilled people meeting employment equity criteria.
- Industry attractiveness – some employers believe that the sector does not attract skills.



Table 12 shows the top 10 occupations which employers classify as hard-to-fill, owing to one or a combination of the above factors. This information is based on extensive research and findings from MQA's 2015-16 RSSP project, during which comprehensive and regular engagements were held in every province with representatives from industry, labour, training providers and government to understand the skills challenges and needs. Expert stakeholders were also consulted individually to corroborate findings and to determine whether any changes in the skills landscape had occurred since March 2016 when the last regional engagements were held.

**Table 12: Hard-to-fill occupations**

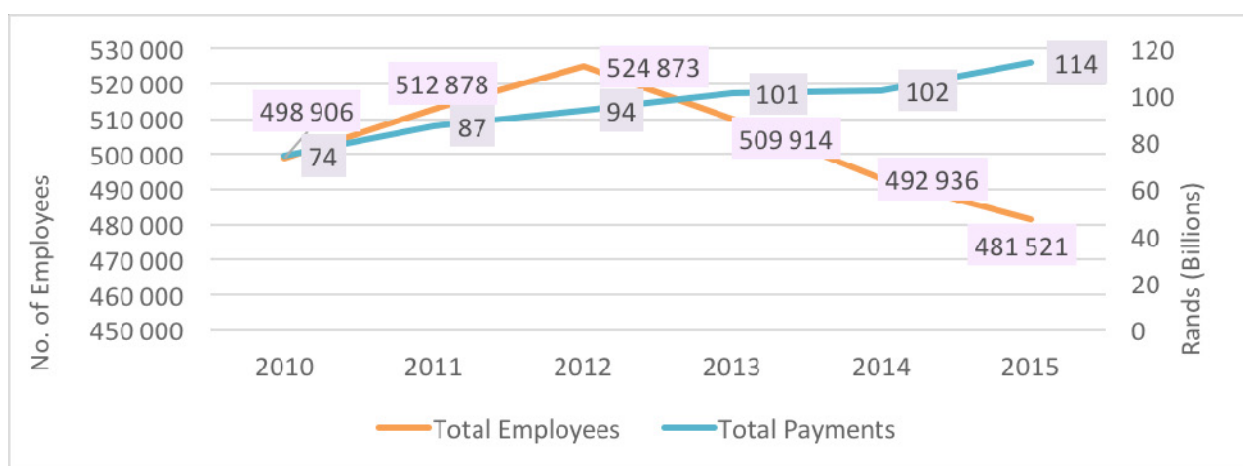
| HARD-TO-FILL OCCUPATION     | NUMBER EMPLOYED | VACANCY INTENSITY (RATE)                                                                                              |
|-----------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Mining Manager              | 132201          | Geographic location, high salary, lack of management skills, MMCC                                                     |
| Mine Planner                | 132202          | Lack of planning & sector experience, lack of HDSAs                                                                   |
| Mining Engineer             | 214601          | Geographic location, high salary, lack of HDSAs, lack of GCC                                                          |
| Rock Engineer               | 214601          | Geographic location, lack of career awareness at university                                                           |
| Surveyor                    | 216502          | Geographic location, lack of experience, lack of GCC                                                                  |
| Rigger Ropesman             | 651501          | Lack of roping skills, low interest from learners                                                                     |
| Diesel Mechanic             | 653306          | Lack of knowledge and experience in updated technology, lack of electrical knowledge. Becoming scarce                 |
| Boilermaker                 | 651302          | Lack of updated technology, declining interest from learners, declining throughput rates at college, low maths levels |
| Instrumentation Mechanician | 672105          | Lack of knowledge and experience in updated technology                                                                |
| Fitter                      | 652301          | Lack of knowledge and experience in updated technology                                                                |

Source: RSSP workshops and national expert stakeholder consultations 2015-16

### 3.2.3. Wage trends

Figure 6 shows that before the year 2012, the number of employees in the mining industry was increasing at a faster rate than the increase in total wage payments. However, the trend was reversed in 2012. Total employment has fallen by 13.3% from a peak of 524 873 in 2012 to 481 521 in 2015. Overall, total wage bill has increased by 54% from 2010 to 2015. DMR's annual figures were used.

**Figure 7: Number of Employees vs Total Wage Payments**



Source: DMR (2010-2015)



Further research over time is needed to fully understand these impacts, but also on the changing skills sets of those employed. As mentioned in Chapter 2, there are indications in the market of other productivity changes that occur as a result of mechanisation, upskilling and reskilling.

### 3.2.4. Employment trends

Table 13 shows the employment trends by occupational category since 2012. In 2014, there was a marked increase in employees across most categories, but 2015 then saw a significant decrease. In some cases, the numbers dropped to below 2012 numbers, especially in the lower-skilled categories. Since 2012, however, the biggest decreases in employment numbers are found in the Elementary occupations, with a 26% decrease (since 2012), Managers with a 24.1% decrease, and Plant and Machine Operators & Assemblers, with an 18.4% decrease since 2012.

**Table 13: Employment trends by occupational category**

| Occupational category                                                                        | 2012           | 2013           | 2014           | 2015           | 2016                                             |
|----------------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|--------------------------------------------------|
| Managers                                                                                     | 17 643         | 12 181         | 13 359         | 14 165         | 13 397                                           |
| Professionals                                                                                | 26 852         | 21 853         | 25 749         | 26 601         | 25 691                                           |
| Technicians and Associate Professionals                                                      | 70 254         | 50 541         | 68 688         | 61 145         | 57 877                                           |
| Clerical Support Workers                                                                     | 27 299         | 19 204         | 23 596         | 22 315         | 21 582                                           |
| Service and Sales Workers                                                                    | 7 125          | 5 258          | 6 488          | 6 419          | 6 885                                            |
| Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers (Artisan category) | 34 315         | 30 726         | 38 238         | 39 677         | 39 949                                           |
| Plant and Machine Operators and Assemblers                                                   | 264 952        | 202 386        | 238 764        | 213 412        | 216 245                                          |
| Elementary Occupations                                                                       | 172 699        | 124 722        | 150 201        | 131 172        | 127 534                                          |
| <b>Total</b>                                                                                 | <b>621 139</b> | <b>467 826</b> | <b>565 083</b> | <b>514 906</b> | <b>509 160</b><br>(excludes the 10 841 learners) |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2012-2016

### 3.2.5. Conditions of employment

Conditions of employment in the MMS can be described in a number of ways:

- Physical conditions – the type of conditions within the sector vary greatly. For some mining occupations such as Miners, Rock Drill Operators and Mining Managers safety is an important element which must be continuously monitored and, if necessary, addressed. Other occupations such as HR Practitioners and Administrators tend to be office-based with fewer safety concerns.
- Relationships between employer and employee – relations can become stressed prior and during protest action.
- Job security – the MMS is currently facing widespread retrenchment drives across the country and across subsectors. Many jobs, particularly those at the lower skilled levels, are not secure.



### 3.2.6. Migration

Bilateral labour agreements between South Africa and numerous countries in Southern Africa allow for mining companies to employ workers with Southern African Development Community origin, thus allowing for diversity of skills in the sector. Table 14 shows the number of foreigners employed in each occupational category.

**Table 14: Foreign skills**

| OCCUPATIONAL CATEGORY (OFO) |                                                                                                 |                              | NUMBER OF<br>FOREIGNERS<br>EMPLOYED IN<br>OCCUPATION<br>GROUP | PERCENTAGE OF<br>FOREIGNERS TO<br>TOTAL EMPLOYED<br>IN OCCUPATION<br>GROUP |
|-----------------------------|-------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|
| GROUP                       | TITLE                                                                                           | TOTAL EMPLOYED<br>IN THE MMS |                                                               |                                                                            |
| 1                           | Managers                                                                                        | 13 397                       | 423                                                           | 3.16%                                                                      |
| 2                           | Professionals                                                                                   | 25 691                       | 812                                                           | 3.16%                                                                      |
| 3                           | Technicians and Associate Professionals                                                         | 57 877                       | 4 921                                                         | 8.50%                                                                      |
| 4                           | Clerical Support Workers                                                                        | 21 582                       | 434                                                           | 2.01%                                                                      |
| 5                           | Service and Sales Workers                                                                       | 6 885                        | 264                                                           | 3.84%                                                                      |
| 6                           | Skilled Agricultural, Forestry, Fishery, Craft and Related Trades<br>Workers (Artisan category) | 39 949                       | 1 104                                                         | 2.76%                                                                      |
| 7                           | Plant and Machine Operators and Assemblers                                                      | 216 245                      | 38 879                                                        | 17.98%                                                                     |
| 8                           | Elementary Occupations                                                                          | 127 534                      | 13 655                                                        | 10.71%                                                                     |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2016

Table 14 reveals that the occupational categories with the highest number of foreigners are Plant and Machine Operators and Assemblers (17.98%), Elementary Occupations (10.71%), and Technicians and Associate Professionals (Miners fall into this category) (8.5%). The use of migrant workers, highest in the 2 lowest-skilled categories where Table 13 showed that some of the biggest drops in employment numbers have occurred since 2012, has been raised by some of the MQA's Skills Research and Planning Committee members as being a possible area requiring further discussion and research.

## 3.3. EXTENT AND NATURE OF SUPPLY

The future growth prospects of a sector are dependent on the availability of appropriate and affordable skills, therefore an analysis of the supply-side is necessary. Data received from the MQA, DMR, DHET and Chamber of Mines on education and training, as well as comments from stakeholders at numerous national and regional meetings held between June 2015 and May 2016, were analysed for this section.

### 3.3.1. Current state of education and training provision

The skills required for the MMS are produced at school, TVET Colleges, private Training Providers, Universities of Technology, Universities as well as workplaces themselves.

#### 3.3.1.1. Basic education

##### 3.3.1.1.1. Overview of the basic education

The skills available to the sector consist of people currently employed, as well as those that are unemployed but available for work. Chapter 1's labour market profile showed that the biggest proportion of workers (47%) have achieved the equivalent of Grades 10 - 12 as their highest level of education. However, stakeholders at every regional



meeting expressed concern at the quality of basic education in the country. Many occupations within the MMS require a foundation of good quality Maths and Science, which for the majority of the population is lacking, even when Grade 12 has been completed. South Africa has one of the highest rates of public investment in education in the world. At about 7% of gross domestic product (GDP) and 20% of total state expenditure, the government spends more on education than on any other sector. School infrastructure has been a persistent challenge for many rural provinces and a fair portion of the Department of Basic Education's budget will be channeled to rural school infrastructure. The NDP calls for 450 000 Grade 12 learners to achieve university entrance passes with Maths and Physical Science in 2030. But the intake for these subjects at high school has been slow. Although the national Grade 12 pass rate has improved somewhat in recent years, questions remain about the quality of the Grade 12 certificate, especially considering that learners need to score only 30% to pass some subjects. National and regional stakeholders believe that many learners struggle with the National Certificate Vocational (NCV) subjects at TVET Colleges because their basic education has been poor. It is believed that when this has been resolved, much of the current training requirements which employers and the MQA have to fund will become unnecessary.

Employees whose highest level of education is between Grades 4 and 9 constitute 22% of the sector. This range includes AET levels 1 – 4. As discussed in Chapter 2, given that changing technology and Mining Phakisa's mechanisation goals will lead to a need for upskilling of many current and future employees in the areas of machine operations and maintenance, it will be important for stakeholders in the sector to prioritise the funding of AET training, up to and including level 4. This will help to develop adequate literacy and numeracy levels for industry's emerging new skills requirements. MQA's WSP/AR submissions show that employers in the sector do offer training on AET 1 – 4 for their employees. In 2015-16 a total of 4 333 employees received 1 or more levels of AET training.

#### 3.3.1.1.2. MQA interventions to address challenges at basic education level

The MQA, in consultation with the MMS, has been developing skills interventions over the years to meet the scarce and critical skills needs in the sector, at various levels of education.

#### 3.3.1.1.3. MQA interventions in basic education: Maths and Science programmes

The MQA has developed an intervention which aims to address the poor quality of Maths and Science at basic education level. It supports Grades 10, 11 and 12 learners to successfully complete Maths and Science. In 2015-16 the MQA committed to support 1,000 learners, which was successfully achieved with a total of 1,010 learners supported in this programme. Stakeholders during the RSSP project suggested that these programmes be monitored for impact, and that the learnings be incorporated into the programmes to ensure effectiveness. A popular suggestion from national and regional stakeholders was to focus efforts on the development of teachers, as well as focus on fewer beneficiaries, to ensure impact. It was widely suggested that considerable funding be directed at those who are applying for bursaries, and as a condition before commencement of studies.

#### 3.3.1.1.4. MQA interventions in basic education: Career awareness

Stakeholders in the sector widely believe that career guidance initiatives should be taking place before Grade 10, when learners need to decide their subjects, including whether or not to drop Maths and replace it with Maths Literacy. There is a lack of informative career guidance for the majority of the population which would help a person understand the variety of career options and career progression opportunities that are available. In 2015-16 the MQA committed to target 10 000 learners to attend its career guidance workshops, the aim of which is to provide comprehensive information on careers and pathways in the sector and to correct any misperceptions about mining occupations, as the MMS is not perceived to be an attractive industry to work in. This target was exceeded by a substantial amount – a total of 13 871 delegates attended, the reason being an unexpected public response to the activities. Regional stakeholders during the RSSP project emphasised the role of career guidance in creating awareness and knowledge around the diverse mining career options available, as well as in providing information on the importance of pursuing Maths and



Science until Grade 12 (including the consequences on future career prospects if not done). Career awareness events should provide sufficient detail so that a person is empowered to make an informed decision regarding whether or not the career might be suited to them or not, and whether or not the mining industry is attractive to them, thus potentially avoiding career changes and unnecessary training expenditure at a later stage. Regional stakeholders suggested that this initiative should be monitored for impact, and that an increase in events at high schools be undertaken if possible.

### 3.3.1.2. TVET college sector

TVET colleges form a critical component of the current training capacity of skills for the sector. Programmes include NCV, Nated (mainly for artisan development), skills programmes, learnerships and short courses. Many MMS-related skills are developed at this level of education, covering a variety of mining operations including blasting, excavations, metallurgy and engineering. Practical training at college workshops and on-the-job workplace experience are an important component of this level.

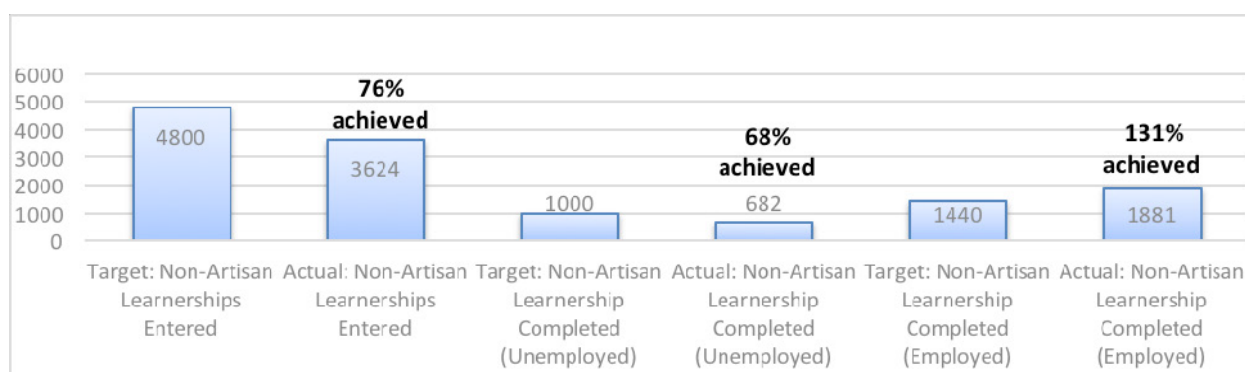
The main concern at this level was stated by regional stakeholders as being that many learners are not adequately work-ready upon graduating, particularly artisans. While employers appreciate the need to carry a measure of responsibility for the training of graduates to develop company-specific skills, indications are that many colleges' workshops are not equipped enough to provide adequate practical training required for the completion of qualifications, and curricula are for the most part not believed to be updated with latest technologies being used in the sector.

Below is a summary of the MQA's skills development interventions at the TVET college sector level to assist industry in meeting its skills requirements.

#### 3.3.1.2.1. MQA interventions at TVET college: Learnerships (non-artisan)

Figure 7 shows the Annual Targets versus Actual Achievements for 2015-16 where learnerships are concerned, excluding artisans. A total of 3 624 learners registered for MQA-funded non-artisan learnerships, which is 76% of MQA's target; 682 unemployed learners completed non-artisan learnerships during the year, a 68% achievement of the target; and 1 881 employed learners completed non-artisan learnerships during the year, which exceeded the target at 131%.

**Figure 8: MQA Learnerships (excluding artisan): Target vs Actual 2015-2016**

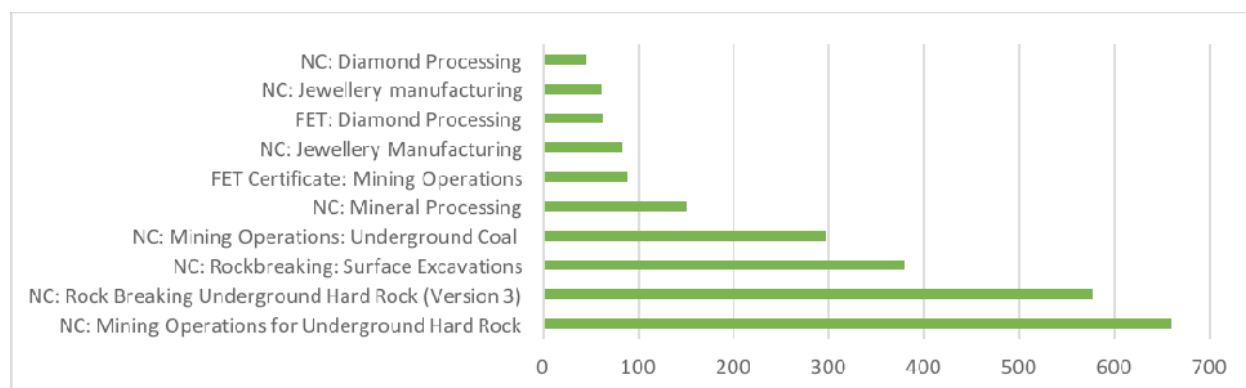


Source: MQA database (2016)

Figure 8 shows the Top 10 learnerships (excluding artisans) completed by unemployed and employed learners in 2015-16. The top 3 concern core mining skills at stage 1 of mining activities. With many subsectors in the MMS undergoing retrenchment drives, there is currently very little indication of a shortage in the skills supplied in the TVET College sector, with the exception of a lack of practical experience and knowledge in new technologies.



**Figure 9: Top 10 Learnerships Completed in 2015-16 (excluding artisan)**

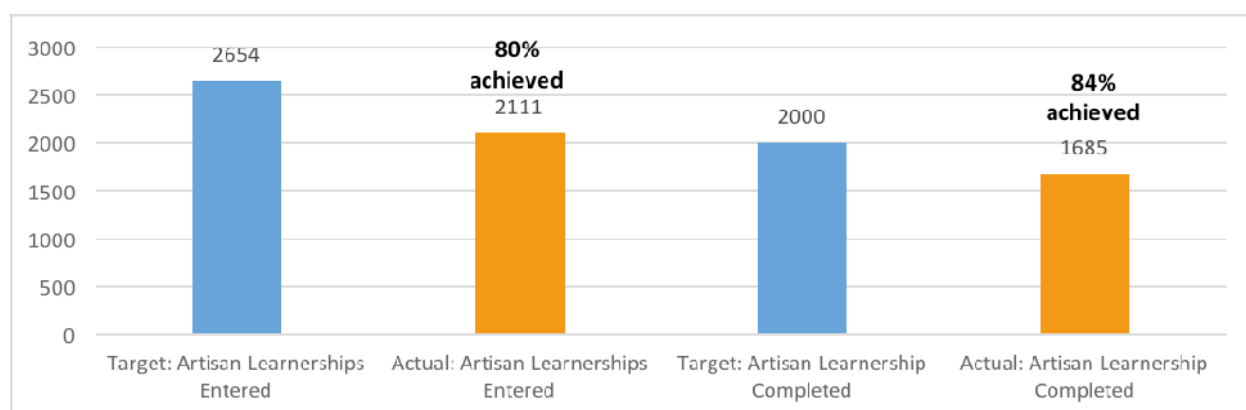


Source: MQA Database (2016)

### 3.3.1.2.2. MQA interventions at TVET college: Artisan development

Figure 9 shows the annual targets versus actual achievements for 2015-16 where artisan learnerships are concerned. A total of 2 111 learners entered MQA-funded artisan learnerships, which is 80% of MQA's target; while 1 685 learners completed artisan learnerships during the same year, which is 84% of MQA's target.

**Figure 10: MQA Learnerships (artisan): Target vs Actual 2015-2016**

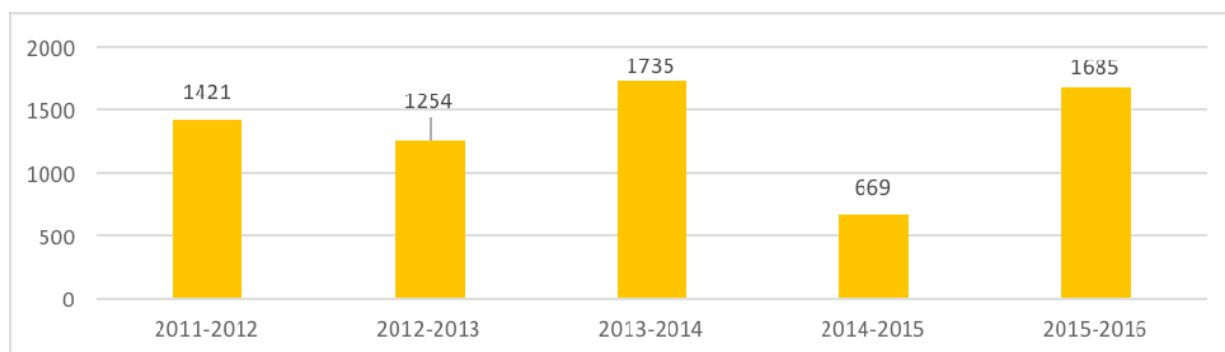


Source: MQA Database (2016)

Figure 10 shows a 5-year analysis of the number of learners who completed artisan learnerships. From 2009 the numbers remained over 1,000, but in 2014-15 there is a significant drop to below 700. Upon analysis of previous enrolments figures, it was found that a significant drop in enrolments occurred in 2011, and then recovered to over 2 000 enrolments for subsequent years. This decrease 3 years ago may help to explain the reason for the low completion numbers in 2014-15, therefore it was anticipated in last year's report that the numbers would show an increase in 2015-16. The numbers for 2015-16 indeed showed a significant increase in completions, the second highest in 5 years.



**Figure 11: Artisan qualifications completed**



Source: MQA Database (2016)

Table 15 shows a breakdown of the artisan learnerships completed and entered in 2015-16.

**Table 15: Artisan learnerships entered and completed**

| OFO DESCRIPTION        | NUMBER OF LEARNERS COMPLETED<br>2015-16 | NUMBER OF LEARNERS<br>ENTERED 2015-16 |
|------------------------|-----------------------------------------|---------------------------------------|
| Electrician            | 480                                     | 440                                   |
| Fitter                 | 337                                     | 405                                   |
| Diesel Mechanic        | 247                                     | 253                                   |
| Welder                 | 160                                     | 131                                   |
| Millwright             | 108                                     | 94                                    |
| Boilermaker            | 101                                     | 155                                   |
| Instrument Mechanician | 97                                      | 69                                    |
| Fitter and Turner      | 87                                      | 76                                    |
| Rigger Ropesman        | 49                                      | 81                                    |

Source: MQA Database (2016)

Firstly, Table 15 shows that MQA funding towards artisan development may have decreased in recent years, owing to the number completed in 2015-16 being higher in some cases to the number entered in 2015-16. MQA's artisan development team also advised that there is a lot of fluctuation in the system, with many learners leaving their studies for a while and then re-entering. Secondly, as Diesel Mechanic, Boilermaker, Instrument Mechanician and Rigger Ropesman are on the hard-to-fill occupations list, with Diesel Mechanic in particular becoming scarce, it will be important to see successful throughput of learners who have just entered. Furthermore, these learnerships need to incorporate changes in technology within the occupations and include work experience at suppliers of new technology to the mines. Stakeholders also expressed concern regarding Rigger Ropesman, stating that throughput numbers are decreasing – corroborated by the table above, and that interest in the occupation is declining, also corroborated somewhat by the table since its number of entered learners is one of the lowest.

Since the number of graduates is higher than the number of vacancies in the sector, it appears that enough artisans are being developed in the system. However, the MQA competes with other sectors for artisans, and an uncertainty with the completed numbers is that the number of graduates who do seek and find employment in the MMS after studying is unknown.



### 3.3.1.2.3. MQA interventions at TVET college: Practical training and workplace exposure

According to the National Skills Accord between industry and government, SETAs need to facilitate the placement of TVET College and university students into industry. In 2015-16 the MQA had a target to place 500 TVET NCV learners with host employers, with 529 being successfully placed. The target for P1 and P2 training for the University of Technikon students was also successfully achieved, with the target of 650 exceeded by 80, as well as internships for University graduates (target of 450 was exceeded by 88).

To help alleviate the burden on employers to mentor learners, the MQA has introduced an initiative to place coaches within workplaces to support employers with on-the-job mentoring and coaching activities. The target for 2016-17 is to place 50 coaches in companies for this purpose.

Suggestions from stakeholders included that the focus on TVET Colleges should be on lecturer development. These suggestions are currently being addressed by the MQA, which has a programme to place lecturers in companies for workplace exposure. In 2015-16 the MQA's target of placing 20 lecturers was successfully achieved.

### 3.3.1.3. MQA-Accredited Training Providers

As of April 2016, there were a total of 150 Training Providers which were fully accredited by the MQA, meaning that they focus on MMS-related qualifications, with another 33 offering a few MQA-approved programmes. Training providers at regional workshops expressed that the process of gaining accreditation is sometimes very lengthy which impedes the speed at which skills can be developed in the MMS.

### 3.3.1.4. Employer training reported on WSP-ATR

Companies in the sector contribute much to the development of skills for employees. Over 1 million training programmes were completed by employees in 2015-16. They varied greatly in type, from job-specific development programmes to learnerships, with the 3 most common being short courses (a total of 279 225 completed), induction training (243 443) and refresher/ex-leave training (163 479).

Upon deeper analysis of the different types of short courses completed, it was found that while many of them were not specified in the WSPs, among the highest were Rock Engineering Strata Control Operations, Occupational Health & Safety, and Blasting Assistant within Underground Hard Rock.

There were 5 868 employees impacted by MQA learnerships. A further 353 learnerships were programmes from other SETAs, such as:

- CETA: Refractories Installer (Site Assistance) Level 2
- CHIETA: Chemical Boilermaker Level 4
- ESETA: National Certificate in Electrical Engineering (Generation) Level 3
- ETDP: National Certificate: Occupationally Directed Education, Training and Development Practices Level 6
- FASSET: Certificate: Certified Accounting Technician Level 5
- INSETA: GUI Based Applications for End-user Computing Level 3
- merSETA: Further Education and Training Certificate: Automotive Repair and Maintenance (Earthmoving Equipment) Level 4
- SERVICES SETA: First Line Manager Level 5
- TETA: National Certificate in Freight Handling, Warehousing & Distribution Level 3

This reinforces the importance of ongoing collaboration between the MQA and other SETAs.



### 3.3.1.5. Chamber of Mines certificates

Table 16 shows the number of certificates in MMS-related qualifications which the Chamber of Mines has issued since 2010. The numbers have declined significantly. December 2015 numbers show that about a quarter (253) of December 2014's total (1 107) were issued, possibly indicating declining interest levels from learners. A particular concern to key role-players could be the low numbers of learners studying Advanced Rock Engineering, considering it is on the hard-to-fill list.

**Table 16: Certificates issued by Chamber of Mines**

| CERTIFICATE                                              | AS AT JULY<br>2010 | AS AT JULY<br>2011 | AS AT JULY<br>2012 | AS AT JULY<br>2013 | AS AT DEC<br>2014 | AS AT JULY<br>2015 | AS AT DEC<br>2015 |
|----------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|
| Certificate in Advanced Mine Surveying                   | 29                 | 57                 | 70                 | 58                 | 91                | 57                 | 6                 |
| Certificate in Advanced Mine Valuation                   | 41                 | 88                 | 102                | 66                 | 75                | 38                 | 16                |
| Certificate in Advanced Rock Engineering                 | 3                  | 1                  | 11                 | 3                  | 4                 | 4                  | 3                 |
| Certificate in Basic Mine Sampling                       | 272                | 125                | 141                | 63                 | 164               | 80                 | 43                |
| Certificate in Basic Mine Surveying                      | 163                | 134                | 130                | 142                | 156               | 77                 | 66                |
| Certificate in Elementary Mine Sampling                  | 126                | 100                | 90                 | 73                 | 64                | 52                 | 35                |
| Certificate in Elementary Mine Surveying                 | 150                | 114                | 130                | 88                 | 141               | 95                 | 25                |
| Certificate in Mine Environmental Control                | 16                 | 71                 | 19                 | 8                  | 29                | 8                  | 4                 |
| Certificate in Radiation Protection Monitoring Screening | 260                | 70                 | 125                | 109                | 181               | 61                 | 41                |
| Certificate in Rock Mechanics                            | 11                 | 10                 | 27                 | 25                 | 25                | 16                 | 2                 |
| Certificate in Strata Control                            | 55                 | 49                 | 79                 | 64                 | 96                | 61                 | 10                |
| Intermediate Certificate in Mine Environmental Control   | 87                 | 18                 | 32                 | 48                 | 51                | 59                 | 1                 |
| Certificate in Mine Survey Draughting                    | 26                 | 31                 | 22                 | 40                 | 30                | 12                 | 1                 |
| Practical Certificate in Mine / Environmental Control    | 3                  |                    |                    |                    |                   |                    |                   |
| <b>TOTAL</b>                                             | <b>1 242</b>       | <b>868</b>         | <b>978</b>         | <b>787</b>         | <b>1 107</b>      | <b>559</b>         | <b>253</b>        |

Source: Chamber of Mines (2016)

### 3.3.1.6. Higher education and training

Higher education and training (HET), or tertiary education, includes education for undergraduate and postgraduate degrees, certificates and diplomas, up to the level of the doctoral degree. In recent years more school-leavers have been getting marks that enable them to enrol for studies at university – however, owing to the poor Maths and Science pass marks in the country, which is a requirement for the majority of MMS-related qualifications, the uptake for the sector itself remains relatively low.

#### 3.3.1.6.1. Universities

With regard to Universities, some of the fields of study relevant to this sector are Mining Engineering, Mine Surveying, Metallurgy, Chemical Engineering, Geology, Electrical Engineering, Mechanical Engineering, Jewellery Design and Manufacturing. Mining Engineering is offered at the University of the Witwatersrand, the University of Pretoria, the



University of Johannesburg, and UNISA, while Mine Surveying is offered at the University of Johannesburg. Jewellery Design and Manufacturing is offered at Stellenbosch University and at 4 Universities of Technology. The other fields of study are each offered at a number of institutions.

Table 17 shows that the number of graduates in MMS-related qualifications at HET level has generally been increasing. While the number of Geology graduates dropped significantly in 2012, its numbers increased in 2013, and then sharply in 2014. The substantial increase in 2014 is a concern owing to prevalent comments by both national and regional stakeholders over the past 2-3 years that many Geologists are unemployed and have been struggling to find a job. There is also a concern regarding Rock Engineering, a specialisation of Mining Engineering, that there is a lack of career awareness at university level for this career path, which has resulted in a shortage in the provinces of North West and Limpopo.

**Table 17: Graduate numbers in MMS-related qualifications**

| QUALIFICATION             | OUTPUT 1999 | OUTPUT 2011 | OUTPUT 2012 | OUTPUT 2013 | OUTPUT 2014* |
|---------------------------|-------------|-------------|-------------|-------------|--------------|
| Chemical Engineering      | 305         | 1 169       | 1 352       | 1 468       | 1 587        |
| Electrical Engineering    | 1 225       | 2 567       | 2 579       | 2 888       | 3 249        |
| Geology                   | 97          | 906         | 45          | 50          | 1 012        |
| Mechanical Engineering    | 531         | 1 892       | 2 064       | 2 259       | 2 447        |
| Metallurgical Engineering | 79          | 367         | 335         | 509         | 477          |
| Mining Engineering        | 148         | 418         | 431         | 474         | 440          |

Source: DHET, HEMIS Data (2016)

\* Most recent data from DHET available. The 2015 figures are not released yet

Table 18 shows the breakdown of the MMS-related qualifications by gender and race, for the year 2014. The number of females enrolled in Electrical Engineering, Mechanical Engineering and Mining Engineering have historically been, and continue to be, significantly lower than males. However, the number of females enrolled in Chemical Engineering and Geology are much higher, as a percentage of the number of males in those qualifications. For all disciplines except Mechanical Engineering, Africans constitute a substantially higher proportion of graduates than other race groups.

**Table 18: Graduate numbers in MMS-related qualifications, by gender and race, 2014**

|              | CHEMICAL<br>ENGINEERING |     | ELECTRICAL<br>ENGINEERING |     | GEOLOGY |     | MECHANICAL<br>ENGINEERING |     | METALLURGICAL<br>ENGINEERING |     | MINING<br>ENGINEERING |     |
|--------------|-------------------------|-----|---------------------------|-----|---------|-----|---------------------------|-----|------------------------------|-----|-----------------------|-----|
|              | M                       | F   | M                         | F   | M       | F   | M                         | F   | M                            | F   | M                     | F   |
|              |                         |     |                           |     |         |     |                           |     |                              |     |                       |     |
| White        | 147                     | 110 | 505                       | 47  | 165     | 73  | 860                       | 77  | 34                           | 9   | 47                    | 10  |
| Indian       | 76                      | 95  | 167                       | 48  | 15      | 25  | 179                       | 33  | 1                            | 1   | 3                     | 3   |
| Coloured     | 42                      | 41  | 92                        | 21  | 37      | 30  | 101                       | 16  | 2                            | 1   | 5                     | 0   |
| African      | 580                     | 496 | 1 732                     | 637 | 325     | 342 | 967                       | 214 | 239                          | 190 | 236                   | 136 |
| Gender Total | 845                     | 742 | 2 496                     | 753 | 542     | 470 | 2 107                     | 340 | 276                          | 201 | 291                   | 149 |
| Total*       | 1 587                   |     | 3 249                     |     | 1 012   |     | 2 447                     |     | 477                          |     | 440                   |     |

Source: DHET, HEMIS Data (2016)

\* 2014 is the most recent data from DHET available. The 2015 figures are not released yet.

### 3.3.1.6.2. Industry-funded bursaries (non-employee and employee)

Table 19 shows the number of bursaries for non-employees funded by the sector's employers who also contribute to skills development. There are 3 bursary types found on this list which are linked to occupations on the hard-to-fill list: Mining Engineering, Mine Survey and Rock Engineering.



**Table 19: Non-employee bursaries funded by employers**

| PROGRAMME TYPE                              | NUMBER OF BURSARIES<br>(AS OF 31ST MAY 2016) |
|---------------------------------------------|----------------------------------------------|
| Mining Engineering                          | 241                                          |
| Mechanical Engineering                      | 173                                          |
| Metallurgy                                  | 107                                          |
| Electrical Engineering (Heavy Current Only) | 77                                           |
| Geology                                     | 66                                           |
| Chemical Engineering                        | 60                                           |
| Mine Survey                                 | 35                                           |
| Environmental Health and Management         | 17                                           |
| Rock Engineering                            | 11                                           |
| Industrial Engineering                      | 9                                            |
| Analytical Chemistry                        | 7                                            |
| Electrical Engineering                      | 4                                            |
| Civil Engineering                           | 2                                            |
| Mine Environmental Control                  | 2                                            |
| Bio Chemistry                               | 1                                            |
| Surveying                                   | 1                                            |
| Other                                       | 1 056                                        |
| <b>Total</b>                                | <b>1 869</b>                                 |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2015-2016

Table 20 shows the number of study-assistance programmes funded by the sector's employers for their employees. While these programmes are usually employee-driven, it is noteworthy that a relatively high percentage (12%) of bursaries is being directed towards Industrial Engineering, given stakeholders' concerns over rising costs and the ongoing need to optimise operations.

**Table 20: Employee study-assistance programmes funded by employers**

| PROGRAMME TYPE                              | NUMBER OF STUDY-ASSISTANCE<br>PROGRAMMES |
|---------------------------------------------|------------------------------------------|
| Industrial Engineering                      | 303                                      |
| Chemical Engineering                        | 195                                      |
| Electrical Engineering (Heavy Current Only) | 176                                      |
| Geology                                     | 153                                      |
| Mining Engineering                          | 70                                       |
| Mechanical Engineering                      | 55                                       |
| Metallurgy                                  | 33                                       |
| Environmental Health and Management         | 37                                       |
| Analytical Chemistry                        | 11                                       |
| Mine Surveying                              | 8                                        |
| Jewellery Design Manufacturing              | 1                                        |
| Other (unspecified)                         | 1 475                                    |
| <b>TOTAL</b>                                | <b>2 517</b>                             |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2016



### 3.3.1.6.3. MQA interventions at HET level

The MQA has a bursary scheme for tertiary studies. It applies to:

- Students entering their first year of study who possess a South African Matriculation Certificate (or an evaluated equivalent qualification) in the subjects and with subject grades that are required by the academic institution (or such equivalent qualification as that the institution may determine), for undergraduate studies;
- Bursars entering their second or third year of study who meet the requirements as specified under the “Bursary Continuation, Suspension and Reinstatement” principles contained in this policy;
- Students studying towards a University or University of Technology (Degree, Diploma and B Tech).

In 2015-16, the MQA's Annual Performance Plan (APP) required that 1 000 bursaries during the year be provided to unemployed learners for MMS-related qualifications. This target was achieved and exceeded by 672, due to overwhelming response from students requiring study assistance. The annual target of 150 for completed programmes was also exceeded, with 265 learners completing their studies. The MQA benchmarks its target throughput rate against educational institutions, which is said to be between 15% and 20%. Table 21 shows the current MQA-funded bursars in the system.

**Table 21: MQA-funded bursars**

| STUDY DISCIPLINE          | 1 <sup>st</sup> YR | 2 <sup>nd</sup> YR | 3 <sup>rd</sup> YR | 4 <sup>th</sup> YR | B. TECH    | HON       | MASTERS   | N1 - N5   | NCV2-4    | TOTAL        |
|---------------------------|--------------------|--------------------|--------------------|--------------------|------------|-----------|-----------|-----------|-----------|--------------|
| Mining Engineering        | 86                 | 90                 | 102                | 29                 | 28         | -         | -         | -         | -         | 335          |
| Mechanical Engineering    | 60                 | 72                 | 59                 | 11                 | 20         | -         | 1         | 17        | -         | 241          |
| Electrical Engineering    | 55                 | 47                 | 26                 | 3                  | 16         | -         | 1         | 45        | 5         | 199          |
| Chemical Engineering      | 26                 | 46                 | 56                 | 20                 | 27         | -         | -         | 1         | -         | 177          |
| Metallurgical Engineering | 35                 | 47                 | 44                 | 3                  | 44         | 1         | 1         | -         | -         | 176          |
| Geology                   | 38                 | 60                 | 28                 | 10                 | 2          | 7         | 1         | -         | -         | 147          |
| Environmental Studies     | 6                  | 53                 | 42                 | 3                  | 11         | -         | -         | -         | -         | 115          |
| Industrial Engineering    | 19                 | 35                 | 40                 | 8                  | 7          | -         | -         | -         | -         | 108          |
| Analytical Chemistry      | 9                  | 29                 | 29                 | 6                  | 6          | 1         | 1         | -         | -         | 81           |
| Other (Ns and NCV)        | 3                  | 5                  | 1                  | -                  | -          | -         | -         | 11        | 10        | 30           |
| Jewellery Design          | -                  | 12                 | 12                 | 5                  | -          | -         | -         | -         | -         | 29           |
| Mining Surveying          | 5                  | 6                  | 6                  | -                  | 3          | -         | -         | -         | -         | 19           |
| <b>TOTAL</b>              | <b>342</b>         | <b>504</b>         | <b>445</b>         | <b>99</b>          | <b>165</b> | <b>9</b>  | <b>6</b>  | <b>75</b> | <b>15</b> | <b>1 659</b> |
| <b>Percentage</b>         | <b>21%</b>         | <b>30%</b>         | <b>27%</b>         | <b>6%</b>          | <b>10%</b> | <b>1%</b> | <b>0%</b> | <b>4%</b> | <b>1%</b> | <b>100%</b>  |

Source: MQA database (2016)

Table 21 shows that 2 of the occupations on the hard-to-fill list, Mining Engineering and Mining Surveying, have bursars currently in the system (335 and 19 respectively). With regard to Mining Engineering, while this represents the highest proportion of bursaries issued by the MQA (20.2%), it will be important for the MQA to create awareness about the specialisation of Rock Engineering among those pursuing this qualification, as a lack of career awareness is widely held by stakeholders to be the main reason for a shortage of Rock Engineers in the sector. However, the number of Mining Surveying bursars is low and may need to be addressed by the MQA. In contrast, the high number of Geology bursars in the system (147 in total), (the majority (66.7%) of which are in first and second year of studies), may need to be addressed by the MQA owing to stakeholders concerns over the past 2-3 years that large numbers of graduates cannot find work.



### 3.3.2. Other supply-side considerations in the MMS

The following 2 sections provide detail on other supply-side concerns, which do not fall neatly into any of the aforementioned education levels, namely Government Certificates of Competency and management skills.

#### 3.3.2.1. Government Certificates of Competency

Certain core occupations within the MMS, such as Mine Engineer and Mine Manager, can only operate upon issuance of a Government Certificate of Competency (GCC) by the DMR, which confirms that the employee has the necessary skill-set required to perform the job. There are stringent qualification criteria, which include years of experience and passing of examinations in order to qualify for a GCC. Table 22 shows the number of certificates which the DMR has issued in the past 5 years. Mine Engineer is of most concern as its certificate numbers dropped by 19% in 2015-16 and is one of the occupations on the hard-to-fill occupations list. Mine Manager is also on the hard-to-fill occupations list. Its certificate numbers dropped significantly last year, but started to recover in 2015-16. Generally, sector stakeholders have expressed concern over the decreasing numbers and the standards required to achieve a GCC, and as a result research has been underway to unpack the reasons. Once understood, the MQA will appropriate resources accordingly to address them.

There are significantly fewer females qualifying for all of these certificates. The MQA continues to support females through numerous programmes, in order to attract more to the sector and develop them if necessary.

**Table 22: Certificates of Competency issued by DMR**

| YEAR        | MINE ENGINEER<br>(ELEC & MECH) |     |    | MINE MANAGER<br>(COAL & METAL) |    |    | MINE OVERSEER<br>(COAL & METAL) |     |    | MINE SURVEYOR |    |   | WINDING ENGINE<br>DRIVER |    |    |
|-------------|--------------------------------|-----|----|--------------------------------|----|----|---------------------------------|-----|----|---------------|----|---|--------------------------|----|----|
|             | TOTAL                          | M   | F  | TOTAL                          | M  | F  | TOTAL                           | M   | F  | TOTAL         | M  | F | TOTAL                    | M  | F  |
| 2011 - 2012 | 61                             | 56  | 5  | 99                             | 84 | 15 | 187                             | 176 | 11 | 9             | 9  | 0 | 31                       | 24 | 7  |
| 2012 - 2013 | 72                             | 71  | 1  | 62                             | 49 | 13 | 165                             | 157 | 8  | 12            | 12 | 0 | 18                       | 14 | 4  |
| 2013 - 2014 | 115                            | 100 | 15 | 73                             | 57 | 16 | 177                             | 168 | 9  | 10            | 10 | 0 | 58                       | 34 | 24 |
| 2014 - 2015 | 121                            | 102 | 19 | 15                             | 12 | 3  | 103                             | 93  | 10 | 10            | 8  | 2 | 33                       | 15 | 18 |
| 2015 - 2016 | 98                             | 80  | 18 | 29                             | 22 | 7  | 105                             | 99  | 6  | 9             | 8  | 1 | 35                       | 19 | 16 |

Source: DMR (2016)

#### 3.3.2.2. Management skills

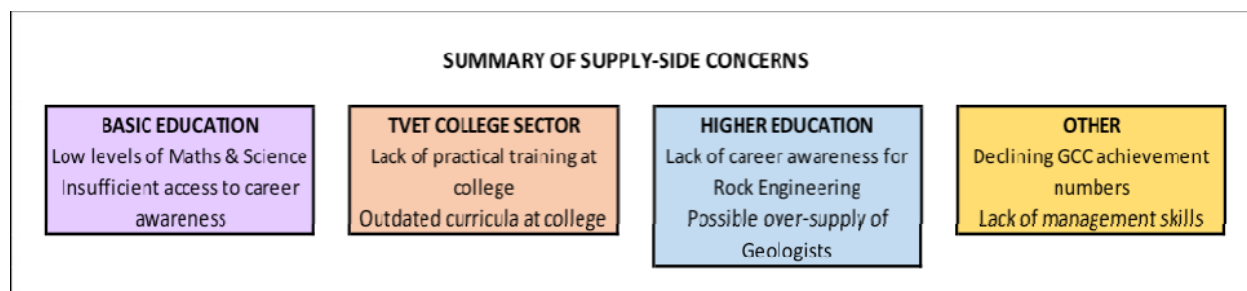
Technical people, often Engineers, are promoted to managerial positions as there is a need for Managers of mines to have a strong technical understanding of the operations they are managing. The sector lacks people with a combination of senior technical knowledge and strong management skills which can negatively affect productivity and internal relations. National experts believe that the best place to develop these skills is experientially at the workplace, which takes at least 8 years. Numerous regional stakeholders suggested that opportunities need to be created at early career stages, for example managing small tasks, as well as attending management development courses. The MQA has a Management Development Programme in place which aims to address this challenge.

### 3.3.3. Summary of Skills Supply

Figure 11 shows a summary of the supply-side issues discussed above which are currently faced by the sector's employers.



**Figure 12: Summary of supply-side concerns**



Source: UCS 2016

### 3.4. IDENTIFICATION OF SCARCE SKILLS AND SKILLS GAPS

#### 3.4.1. Scarce skills

Scarce occupations, otherwise known as hard-to-fill vacancies, are defined as occupations which take 3 months or more to find a candidate with suitable work experience, qualifications and attributes at current wage levels. Scarce skills are usually caused by one of two factors:

1. Absolute scarcity – this relates to suitably skilled people but who are not available in the labour market. Reasons could include industry attractiveness.
2. Relative scarcity – this relates to suitably skilled people but who do not meet other employment criteria. Reasons could include lack of sector-specific knowledge.

The scarce occupations extracted from the 2015-16 WSPs as of 31st May 2016 are shown in Table 23. The table has been expanded from a top 10 to include all those occupations with a vacancy intensity rate of 5% or higher (as this is the generally-accepted level at which concern regarding possible scarcity is raised). Total scarcity refers to the sum of all vacancies identified in the WSP submissions, Total employed refers to the number that is currently employed by the sector, and Vacancy intensity refers to the number of vacancies as a percentage of the total employment within the occupation - therefore, the higher the percentage the higher the assumed scarcity.

**Table 23: Scarce skills by vacancy**

| OCCUPATION                                           | OFO CODE | ALTERNATIVE TITLE/S                                                                       | TOTAL VACANCY | TOTAL EMPLOYED | VACANCY INTENSITY |
|------------------------------------------------------|----------|-------------------------------------------------------------------------------------------|---------------|----------------|-------------------|
| Diamond and Gemstone Setter                          | 661302   | Jewellery Setter                                                                          | 51            | 127            | 40.16%            |
| ICT Communications Assistant                         | 351201   | Computer Help Desk Operator, ICT Systems Analysis Assistant, ICT Communications Assistant | 15            | 38             | 39.32%            |
| Special Forces Operator                              | 542203   | Team Leader                                                                               | 5             | 17             | 29.85%            |
| Telecommunications Technical Officer or Technologist | 352201   | Engineering Technician (Telecommunications)                                               | 4             | 16             | 25.64%            |
| Telecommunications Line Mechanic                     | 672204   | Telecommunication Electrician                                                             | 1             | 4              | 24.27%            |
| Seismologist                                         | 211402   | Geophysicist, Geophysical Scientist                                                       | 4             | 19             | 21.02%            |
| Ship's Master                                        | 315201   | Deck Officer, Harbour Pilot                                                               | 1             | 5              | 19.23%            |
| Rock Engineering Manager                             | 132203   |                                                                                           | 7             | 39             | 17.91%            |
| Psychometrician                                      | 263409   |                                                                                           | 1             | 6              | 17.61%            |



| OCCUPATION                            | OFO CODE | ALTERNATIVE TITLE/S                                                                                                     | TOTAL VACANCY | TOTAL EMPLOYED | VACANCY INTENSITY |
|---------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------|---------------|----------------|-------------------|
| Accountant                            | 241106   |                                                                                                                         | 1             | 6              | 16.45%            |
| Legal Executive                       | 341102   |                                                                                                                         | 2             | 13             | 15.69%            |
| Engineer Soldier                      | 542305   | Engineer Officer                                                                                                        | 1             | 7              | 13.89%            |
| Ship's Officer                        | 315202   |                                                                                                                         | 1             | 7              | 13.74%            |
| Telecommunications Network Engineer   | 215303   | Communications Specialist (ICT), Communications Consultant                                                              | 1             | 7              | 13.51%            |
| Occupational Social Worker            | 263507   | Adoptions Worker                                                                                                        | 4             | 38             | 10.53%            |
| Computer Network and Systems Engineer | 252301   | Applications Developer, Systems Engineer, Computer Network Engineer, Network Support Engineer                           | 11            | 123            | 8.91%             |
| Employee Wellness Manager             | 121205   | Employee Wellness Consultant                                                                                            | 1             | 12             | 8.40%             |
| Bricklayer                            | 641201   | Bricklayer (Refractory and/ or Chemical), Bricklayer (Refractory), Bricklayer and Plasterer                             | 10            | 123            | 8.16%             |
| Electronics Engineer                  | 215201   | Instrumentation Engineer, Information Engineer                                                                          | 6             | 79             | 7.64%             |
| Electrical Engineer                   | 215101   | Control Engineer, Electrical Engineer (Mines)                                                                           | 25            | 352            | 7.11%             |
| Goldsmith                             | 661301   | Jeweller, Jewellery Chainmaker (Hand Made), Designer Goldsmith                                                          | 52            | 784            | 6.63%             |
| Developer Programmer                  | 251203   | ICT Programmer, ICT Developer, Applications Developer                                                                   | 3             | 47             | 6.40%             |
| Dentist                               | 226102   |                                                                                                                         | 1             | 17             | 5.92%             |
| Automotive Motor Mechanic             | 653101   | Auto Engineer / Mechanic, Automotive Fitter, Automotive Mechanic, Mechanical Service Advisor (Vehicles), Motor Mechanic | 12            | 218            | 5.50%             |
| Transportation Electrician            | 671208   | Auto Electrician, Locomotive Electrician                                                                                | 37            | 738            | 5.02%             |
| Electronics Engineering Technologist  | 215202   | Instrumentation Technologist, Information Technologist, Computer Engineering Technologist                               | 9             | 180            | 5.00%             |

Source: Calculated from Weighted MQA WSP/ATR Submission, 2016

When one considers the low total employment for the majority of occupations, their scarce intensity rates are not cause for concern. The vast majority of the occupations are also not core to the MMS. However, of those which are, Diamond & Gemstone Setter and Rock Engineering Manager have considerable scarce intensity rates. Rock Engineer is also on the hard-to-fill occupations list so this may need to be addressed by the MQA. Other occupations which are core to the MMS and whose scarce intensity rates may be of concern to the MQA, are Electronics Engineer, Electrical Engineer, Goldsmith, Automotive Motor Mechanic, Auto Electrician and Electronics Engineering Technologist. It is believed by both national and regional stakeholders that more emphasis should be placed on the hard-to-fill occupations (Table 12) rather than the scarce skills, as the hard-to-fill occupations were determined by a year of extensive consultation with numerous stakeholders, with consensus reached by industry, labour, government and training providers, while the scarce skills list is based on the number of vacancies only.



### 3.4.2. Mineral beneficiation skills

Occupations in shortage, as advised by jewellery manufacturing & design companies, include Gemologist, Diamond Polisher, Diamond Cutter, Diamond and Gemstone Setter and Goldsmith. The latter two are also found on the scarce skills list. Only a few of these companies attended the meetings, therefore further research needs to be undertaken to fully quantify the extent of demand. The main reasons provided for the scarcity were a combination of the following factors:

- Lack of learners with inherent talent in innovative design.
- Lack of learners who have a natural interest in and passion for the industry.
- Learners are not employable when they graduate owing to a lack of practical and relevant experience, which is a risk for employers as metals wastage can be an expensive cost.
- Lack of high quality training providers with well-equipped workshops.

### 3.4.3. Skills areas in the sector that need improving

Table 24 lists the main skills issues which emerged through analysis of stakeholder engagements.

**Table 24: Primary skills concerns in the MMS**

| SKILLS ISSUE                          | REASON FOR CONCERN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maths and Science                     | The poor quality of basic education results in poor levels of Maths and Science, subjects which are critical to the MMS. Currently this is a concern for Boilermaker, which is showing decreasing throughput rates from learners.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Career awareness                      | Career awareness events are currently perceived as not being accessible and informative enough for learners at the majority of high schools. Career awareness should provide sufficient detail that a person is empowered to make an informed decision regarding whether or not the career might be suited to them or not, thus potentially avoiding career changes and unnecessary training expenditure at a later stage.                                                                                                                                                                                                                                                                                 |
| Employment equity                     | Employers struggle to find suitably qualified HDSAs to fill certain roles, in particular Senior Managers and Engineers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Technology                            | Learners are often not perceived to be work-ready upon graduating, increasingly owing to changing technology and the practical components at colleges not having adapted accordingly. This is true for the majority of artisan qualifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Government Certificates of Competency | Sector stakeholders have expressed concern over the decreasing number of people achieving a GCC. Research has been underway to unpack the reasons. Once understood, the MQA will appropriate resources accordingly to address them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Management skills                     | Technical people, often Engineers, are promoted to managerial positions as there is a need for Managers of mines to have a strong technical understanding of the operations they are managing. The sector lacks people with a combination of senior technical knowledge and strong management skills which can negatively affect productivity and internal relations. National experts believe that the best place to develop these skills is experientially at the workplace, which takes at least 8 years. Numerous regional stakeholders suggested that opportunities need to be created at early career stages, for example managing small tasks, as well as attending management development courses. |
| Interest from youth                   | There is a perception from regional stakeholders that there is a decline in interest from the youth in pursuing qualifications for Rigger Ropesman, Boilermaker, Diesel Mechanic, Rock Drill Operator, Drill Rig Operator and Mechanical Loader Operator.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Geographic location                   | Numerous employers struggle to attract high-level skills owing to their remote locations, particularly Engineers and all the medical occupations (e.g. Occupational Health Nurse and Doctor). High salaries are expected in order to incentivise relocation to these areas.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Industry attractiveness               | High-level individuals in non-core occupations, especially medical such as Occupational Health Nurse and Doctor are generally not attracted to working in the MMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Source: Regional and expert stakeholder engagements, 2015-2016



#### 3.4.4. Impact of skills shortages on employers

Employers at regional meetings advised that the impact of these skills gaps include:

- The lack of high quality Maths and Science levels in learners make training more challenging to employers, as many of the MMS-related occupations require these subjects as a foundation to do the jobs well.
- Employers struggle to find qualified HDSAs to fill some of the engineering and management roles, which affects Employment Equity numbers.
- Changing technology in the MMS has affected the skills required within certain occupations, particularly artisans. Colleges for the most part have not adapted accordingly, which is an increased training cost to employers.
- Employers located in rural areas need to incentivise skilled people to relocate from other parts of the country, with additional incentives to retain them, which is a high cost to company.
- The lack of management skills can cause tension between employees within companies, and a lack of planning ability within the management skill can disrupt operations and jeopardise productivity.
- Employers sometimes struggle to find suitably qualified skills from local communities, which can result in community protests and unrest. This can lead to a decline in productivity and profitability while the unrest is ongoing, or in the case of new mines, operational start up delays.
- Individuals in non-core occupations such as Occupational Health Nurses are generally not attracted to working in the MMS, thus companies need to incentivise with high salaries. This is an increased cost to company.

#### 3.4.5. Employability of graduates

- Graduates who complete artisan qualifications are perceived to be not work-ready as they lack knowledge of and experience in new technology, which can be caused by inadequate practical training at college, as well as workplace experience which is too generic in nature. The responsibility then becomes the employers' to undertake further training for them. MQA's work-integrated learning programmes aims to address this issue.
- Graduates of non-mining engineering qualifications usually lack MMS-related experience. Companies generally prefer to recruit Engineers with some sector-related experience. MQA's internship programmes for Engineering graduates aims to address this issue.
- MQA is undertaking impact assessments of bursary, internship, work placement and artisan qualifications, and a tracer study of bursars is currently underway as well.

#### 3.4.6. PIVOTAL skills

The MQAs' OFO Code Pivotal Skills List in Table 25 was determined by considering the hard-to-fill occupations, as well as the critical skills within occupations which are lacking, as advised by both national and regional stakeholders. The occupations on the scarce skills list were considered as well, with particular focus on those which are on the hard-to-fill list as well. It is important to note that sometimes the occupation itself is not necessarily scarce, rather a skill within the occupation is. In this case, this is especially true for Mining Manager and Mine Planner and the artisan trades.

It is important to note that since the PIVOTAL list is OFO code-based, it is not possible to reflect the MQA's other critical priorities in it. For example, AET, MDP, OHS, as well as skills related to mineral beneficiation and sustainability are blanket priorities in the sector and required to be developed within many occupations and at different NQF levels. Therefore, highlighting some of these occupations in the PIVOTAL list would be excluding many others which are as applicable. Considering this, as well as that PIVOTAL skills is also required to address scarce and critical skills, the MQA's research team chose to focus its PIVOTAL list on those occupations which are hard-to-fill only.

The interventions listed in the PIVOTAL List were informed by understanding the unique reasons for the challenges faced by employers where each of the occupations are concerned. For example, the primary reason facing employers where Mining Manager is concerned is a lack of senior management skills, while the challenges with the artisan trades is a need for increased access to updated technology during studies. The quantities were informed by the number of vacancies for each occupation as at 31st May 2016.

**Table 25: MQAs' OFO Code Pivotal Skills List (2017-18)**

| SETA NAME | SHORT/ MEDIUM/ LONG-TERM | PERIOD  | OCCUPATION CODE | OCCUPATION                  | SPECIALISATION/ ALTERNATIVE TITLE                      | INTERVENTION PLANNED BY THE SETA                                     | NQF LEVEL | NQF ALIGNED Y/N | QUANTITY NEEDED | QUANTITY TO BE SUPPORTED BY THE SETA | 0-100 | 101-1000 | 1001 & ABOVE | COMMENTS                                                                            |
|-----------|--------------------------|---------|-----------------|-----------------------------|--------------------------------------------------------|----------------------------------------------------------------------|-----------|-----------------|-----------------|--------------------------------------|-------|----------|--------------|-------------------------------------------------------------------------------------|
| MQA       | Medium term              | 2017-18 | 132201          | Mining Manager              | Operations Manager (Mining), Mineral Resources Manager | Management development programme & remote mine community development |           | Y               | 33              |                                      |       |          |              | Quantity needed based on number of vacancies as at 31 May 2016 for all occupations. |
| MQA       | Medium term              | 2017-18 | 653306          | Diesel Mechanic             | N/A                                                    | Artisan development and workplace experience                         | 4         | Y               | 68              |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 214601          | Mining Engineer             | Rock Engineer                                          | Bursary, work experience and remote mine community development       | 7         | Y               |                 | 36                                   |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 214601          | Rock Engineer               | N/A                                                    | Bursary, work experience, career awareness                           | 7         | Y               |                 |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 651501          | Rigger                      | Rigger Ropesman                                        | Artisan development and career awareness                             | 4         | Y               | 39              |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 651302          | Boilermaker                 | N/A                                                    | Artisan development, career awareness and Maths & Science programmes | 4         | Y               | 51              |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 132202          | Mine Planner                | Mine Planning Manager                                  | Management development programme, Discretionary grants               |           | Y               | 8               |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 672105          | Instrumentation Mechanician | N/A                                                    | Artisan development and workplace experience                         | 4         | Y               | 26              |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 652301          | Metal Machinest             | Fitter                                                 | Artisan development and workplace experience                         | 4         | Y               | 18              |                                      |       |          |              |                                                                                     |
| MQA       | Medium term              | 2017-18 | 216502          | Surveyor                    | Mine Surveyor                                          | Bursary, work experience and remote mine community development       | 7         | Y               | 20              |                                      |       |          |              |                                                                                     |

Source: Regional and national expert stakeholder engagements, 2015-2016

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The envisaged outcomes from the identified interventions include an increase in Mining Engineers and Rock Engineers in the sector, an increase of senior technical people with management skills, and an increase in the number of artisan graduates with relevant knowledge of and experience in updated technology being used by the sector. The PIVOTAL List is ranked in order of priority according to advice by both national and regional experts in the sector.

### 3.5. CONCLUSION

Analysis of MQA's WSP submissions and comments from national and regional stakeholders between June 2015 and May 2016 indicates that while the number of vacancies per occupation are generally low, there are still a number of hard-to-fill occupations. These are: Mining Manager, Mining Engineer, Mine Planner, Rock Engineer, Surveyor, Rigger Ropesman, Diesel Mechanic, Boilermaker, Instrumentation Mechanician and Fitter. The primary reasons underlying the challenges were found to be related to changing technology which colleges have not adapted to, declining interest from the youth, low maths and science levels, lack of GCC, lack of management experience, lack of HDSAs with senior management experience, geographic location.

Numerous employers struggle to attract high-level skills owing to their remote locations, particularly Engineers and all the medical occupations (e.g. Occupational Health Nurse and Doctor). High salaries are expected in order to incentivise relocation to these areas. Industry attractiveness is also a reason for the difficulty in attracting the medical occupations.

Main supply-side concerns were found to be as follows:

- Basic education: low Maths & Science levels; and insufficient access to career awareness.
- TVET College sector: lack of practical training at colleges; and outdated curricula at colleges.
- HET sector: Lack of career awareness for Rock Engineering, a specialisation of Mining Engineering; and a probable over-supply of Geologists.
- Other (not specific to a level of education): Declining GCC achievement numbers, and lack of management skills.

The MQA assists the industry in addressing these challenges through interventions which include: Partnerships with colleges; Local community projects such as learnerships, skills programmes, Maths and Science programmes, and adult education and training; Targeting HDSAs to address transformation issues; Career awareness programmes. Stakeholders strongly suggested that some of these programmes, in particular Maths & Science and career awareness events, be thoroughly researched and adjusted to increase effectiveness, as well as monitored for impact.



## 4. SECTOR PARTNERSHIPS

### INTRODUCTION

The MQA partners with, and has relationships with numerous key role-players in the industry, such as government departments, labour unions, industry representatives and training providers. The purpose of this chapter is to assess the effectiveness of the existing MQA partnerships in the sector. The chapter identifies problems to maintaining and creating partnerships and proposes measures for deepening them. The Chapter will also indicate new partnerships that the MQA has identified that will be addressed and considered during the cycle of this SSP Update.

### STATE OF EXISTING PARTNERSHIPS

#### 4.1.1. TVET College partnerships

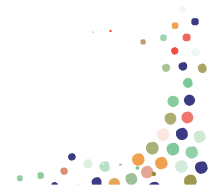
The MQA has established official partnerships, through Memoranda of Understanding (MOUs), with 5 TVET colleges in provinces where MQA has a regional presence, and because qualifications related to the MMS are offered there. For the most part qualifications at the colleges are not yet accredited by the MQA, however one of the primary aims of these partnerships is to support and develop the colleges so that accreditation becomes a natural outcome in the medium to long term. The objectives of the partnerships with these 5 TVET Colleges include to facilitate the offering of learnerships, trades and other industry qualifications, as well as lecturer development, workplace learning, learner placements and to assist with the compliance of these colleges' workshops to meet the standards for programme approval. It is difficult to make a judgement on the partnerships' level of success as most of them are in early stages making incremental progress and adjusting to challenges at the colleges. The partnership in Northern Cape, however, has already yielded significant progress through persistence and the prioritisation of collaboration, as will be discussed in its section below, and should serve as a benchmark to other regions.

The following provides a summary of the successes and challenges of MQA partnerships with each of the 5 colleges:

##### 4.1.1.1. Goldfields TVET College in Free State province

- Assistance with the placement of learners at workplaces is still in early stages, and engagements with employers are underway with one of the gold mine companies having indicated interest in becoming involved. The aim is to place some learners during the 2016-17 financial year.
- A pilot project for the placement of lecturers at workplaces to gain work experience was introduced for Goldfields TVET College wherein MQA committed to facilitate and fund the placement of 20 TVET lecturers in Mining Industry for work experience for a period of three months. However the project was never successfully implemented since it was indicated that the 3 months period was too short for sufficient experience to be gained. The MQA intends to lengthen the work experience period to 18 months as it was indicated that 3 months was too short for sufficient experience to be gained.
- With regard to assistance with the compliance of colleges' workshops to meet the standards for programme approval, an assessment of the workshop at Goldfields TVET College was undertaken and a report of findings was made available, wherein Harmony Gold Mine has also assisted the College to equip the workshops with some of the required equipment.

This partnership stands out for its initiative-taking focus and willingness to learn from experience and adapt quickly. It was noted by stakeholders at the regional workshops in Welkom in 2015 that more stakeholder collaboration is needed, and must be facilitated by the MQA, in order for the college to respond quickly and relevantly to industry needs.



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#### **4.1.1.2. Nkangala TVET College in Mpumalanga province**

A change in senior Management during 2015 at Nkangala led to a delay in the partnership's progress, however discussions with the MQA with regard to how to move forward together are currently underway.

- Assistance with the placement of learners at workplaces is ongoing with the MQA regional office in discussions with employers. Some of the large companies have indicated interest in becoming involved. So far 8 NCV learners have been placed, although there is still a challenge of ongoing resistance from industry regarding the NCV programme.
- Assistance with the placement of lecturers at workplaces to gain work experience is in a similar stage as learner placement, with MQA regional office's engagements with employers yielding positive reactions and candidates have been identified for these companies.
- With regard to assistance with the compliance of Nkangala's workshop, this is still under discussion between the MQA and the college's new Management.

#### **4.1.1.3. Northern Cape Rural TVET College in Northern Cape province**

- Some of the large companies have indicated interest in assisting learners with workplace experience, and the aim is to place the first group of learners during 2016.
- With regard to lecturer development to gain workplace experience, 5 lecturers were impacted during 2015, with early indications showing that the new knowledge is benefiting learners in the classroom in terms of practical application. The challenge is that lecturers can only be released during vacation times.
- Collaborative efforts between numerous stakeholders resulted in the workshop of one of the five campuses of Northern Cape Rural College, Okiep Campus, being deemed compliant in 2015, and their trade test centre becoming accredited by NAMB. The other 2 engineering workshops which are part of Northern Cape Rural College are still undergoing assessments.
- Regional stakeholders in Northern Cape stated that one of the major challenges facing the partnership is that many learners are awarded bursaries but do not perform, mostly because of poor Maths and Science levels. It is believed that better screening of candidates is needed, otherwise bridging programmes need to be considered.

While there are still many challenges to overcome in the partnership with Northern Cape Rural TVET College, the process followed with regard to workshop compliance presents a model example of what can be achieved through multi-stakeholder collaboration and commitment. It will now be important for this partnership to be monitored for its impact on skills priorities in the province.

#### **4.1.1.4. Orbit TVET College in North West province**

- With regard to placement of learners in workplaces, this initiative has not yielded any results yet as companies expressed having their own internal processes for placing learners within their companies, although more recent engagements are showing that employers are willing to take on learners for artisan development.
- With regard to the placement of lecturers at workplaces to gain work experience, while there has been some initial interest from companies they indicated it would be fruitless to place lecturers to gain experience if they are not being developed to become Artisans (since they are teaching apprentices and will struggle with the technical content). It was suggested that MQA's grants for this be sufficient to offset the cost of temporarily replacing the lecturer fulltime to ensure training will not be disrupted.
- With regard to the capacitation of workshops, so far none have been accredited, however ongoing engagements are being held regarding the best way to move forward. One of the large employers in the province is interested in becoming involved, and will participate in an exercise of workshops audits aimed at establishing the college's state of readiness for accreditation on MQA programmes, initially targeting the engineering skills programmes.
- Regional stakeholders in North West stated that one of the major challenges facing the partnership is that many learners at colleges do not perform, mostly because of inadequate career guidance as well as poor Maths and Science levels. It is believed that better career awareness programmes and screening of candidates is needed to ensure interest in and aptitude for qualifications being pursued.



#### **4.1.1.5. Sekhukhune TVET College in Limpopo province**

- Assistance with the placement of learners at workplaces is in early stages and has not yielded any results yet, although the MQA is in ongoing discussions with a number of employers.
- Assistance with the placement of lecturers at workplaces to gain work experience has an Engineering focus, as the MQA is in discussions with employers regarding assistance with the development of lecturers to offer Engineering programmes at the college.
- With regard to the compliance of workshops to meet the standards for programme approval, the MQA is currently in discussions with employers to possibly adopt the college so that infrastructure challenges can be resolved.
- The colleges' Engineering programmes are currently undergoing accreditation assessments.

#### **4.1.2. University partnerships**

The MQA has established official partnerships, through Memoranda of Understanding (MOUs), with the following Universities: Rhodes University, the University of Cape Town, the University of Fort Hare, the University of Johannesburg, the University of Limpopo, the University of Pretoria, the University of South Africa, the University of Venda and the University of the Witwatersrand. The objective of the partnerships with the Universities identified above is for these institutions to employ historically disadvantaged lecturers to lecture on mining-related disciplines. They begin as junior lecturers and are mentored by senior lecturers, and are encouraged to complete PhDs. The MQA funds the salaries of these lecturers. The aim is that they are eventually absorbed by the universities as permanent employees.

The MQA's current target to support 27 HDSA lecturers has been successfully achieved. Since the partnerships' commencement in 2011, 3 lecturers have been successfully absorbed by the university, while 6 have been absorbed by industry. All of these were replaced so that the target of 27 is an ongoing commitment by the MQA.

One of the challenges in this partnership is that there is a very low turnover of lecturers at the universities, so it will likely be a lengthy period of time that MQA needs to support the same pool of HDSA lecturers before they are considered for permanent employment. The MQA has intentions of providing the lecturers with 3 years of international exposure during their tenures, to gain valuable experience and are therefore more employable on their return to South Africa.

#### **4.1.3. Partnerships with the DMR, Chamber of Mines and Organised Labour**

The MQA has had an ongoing and close relationship with its 3 strategic tripartite partners: the DMR, the Chamber of Mines and organised labour. All parties involved in this partnership convene regularly to discuss challenges facing skills development in the MMS. It is considered a successful partnership by the individual parties as it enables the MQA to respond to skills gaps appropriately and with support from its key stakeholders.

#### **4.1.4. Inter-SETA partnerships**

In alignment with the Minister of Higher Education and Training's call for increased inter-SETA collaboration, the MQA is becoming increasingly involved in inter-SETA meetings, often chairing meetings in Limpopo and Mpumalanga and North West. These meetings involve sharing skills development progress reports and focus on possible areas of collaboration. The SETAs also share costs and platforms for career awareness. However, obtaining formal agreements that were proposed is an ongoing challenge. Furthermore, stakeholders advised that not enough Memoranda of Understandings are in place for qualifications needed in the MMS but which are accredited by other SETAs.

#### **4.1.5. Premier's Office partnerships**

The MQA has working relationships with the Premier's Offices in Limpopo, Free State, Mpumalanga, Northern Cape, KZN and Eastern Cape. While the partnerships have not been formalised, there is agreement that this needs to take



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place. All skills development efforts by the SETAs are reported to the Provincial Skills Development Forum chaired by the Premiers, who in turn are engaged for assistance in the removal of blockages to implement them. A challenge is that turnaround time to the implementation of agreements is sometimes long.

## PROPOSED NEW PARTNERSHIPS

### 4.1.6. Minerals beneficiation partnerships

Owing to the size of South Africa's untapped minerals the country has significant potential to increase mineral beneficiation. Stakeholders in every province expressed the importance of implementing efforts to beneficiate the country's minerals and metals, especially during an economic downturn and significantly reduced global demand. The Minerals Beneficiation Strategy is aimed at encouraging the country to move from the sale of mined minerals and metals to the sale of beneficiated, value-added products. The government is currently drafting the Mineral Beneficiation Action Plan (MBAP), which seeks to advance "local value-addition across five mineral value-chains, namely; iron-ore and steel, platinum-group metals, polymers, titanium and mining inputs". The implementation of the Minerals Beneficiation Strategy and MBAP is expected to create and retain much needed jobs in the MMS. However, stakeholders advised that there is much scepticism as little so far has been done to implement the past commitments to mineral beneficiation goals. The argument made in this report is that these interventions are more likely to work if the activities are better coordinated, and that this will have significant implications for the skills development system. The MQA's role would be to respond accordingly with skills development initiatives. Stakeholders that can be engaged and partnered with to keep abreast of any developments, are suggested below:

#### 4.1.6.1. Government partnerships

The DTI completed a research project in 2013 that analysed backward and forward beneficiation potential in four key value-chains (ferrous metals; polymers; titanium, PGMs) and developed strategies to increase the localisation of mining inputs. The next phase was to unpack the high-level analysis and identify key projects in the selected value chains that can be taken forward. Collaboration with the DTI and DMR needs to be put in place to ensure that the MQA can respond accordingly and timeously with the skills development requirements.

#### 4.1.6.2. Training provider partnerships

With regard to the jewellery manufacturing sector, the "Skills Requirements for Mineral Beneficiation through Jewellery Manufacturing" report recommends that Training Provider capacity may need to be supported to provide stronger practical skills. This was corroborated at the regional stakeholder engagements, also revealing a need to capacitate colleges in the provision of comprehensive career guidance and screening programmes to identify students who have an avid interest and talent in innovative design work, which is what is believed is needed to contribute to the sector becoming internationally competitive.

### 4.1.7. Green skills partnerships

Rhodes University's report, "Green Skills for the Mining Sector" conducted on behalf of the MQA and released in May 2015, as well as stakeholder comments made during the regional meetings in June 2015, were used to inform the recommendations in this section.



#### **4.1.7.1. Department of Water and Sanitation partnership**

The Green Skills for the Mining Sector report recommended that the MQA supports the Department of Water and Sanitation in strengthening the capacity of its regulatory function with regard to mining, with a range of skills from demand determination to regulatory roles in the approval and enforcement of water use licences.

#### **4.1.7.2. Research institutions**

The Green Skills for the Mining Sector report also recommended that partnerships be formed with industry including Eskom, the Fossil Fuel Foundation, Mintek, SANEDI, DST and the NRF to complement their funding for cleaner production research in clean technology and processes, and in the effective remediation of the impacts of mining on air, soil and water quality.

## **CONCLUSION**

The MQA has formal partnerships with 5 TVET Colleges. It was highlighted that an increase in more effective collaboration is needed between the MQA, TVET Colleges and industry, for the purposes of responding relevantly to industry's needs and preparing learners accordingly.

Greater collaboration is needed between the MQA and government departments working on implementing the Mineral Beneficiation Strategy, in order to understand in advance what the skills requirements will be.

The MQA is becoming increasingly involved in inter-SETA meetings, which involve the sharing of skills development progress reports and focus on possible areas of collaboration. However, obtaining formal agreements that were proposed is an ongoing challenge. Furthermore, stakeholders have advised that not enough MOUs are in place for qualifications needed in the MMS but which are accredited by other SETAs.

Regarding green skills, a partnership with the Department of Water and Sanitation is recommended to mitigate the challenge of significantly reducing water levels, to combine strengths and avoid duplication of work. It is also recommended that partnerships be formed with companies' R&D departments that focus on cleaner production research in clean technology and processes, and in the effective remediation of the impacts of mining on air, soil and water quality.



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## 5. SKILLS PRIORITY ACTIONS

### RESEARCH FINDINGS

The purpose of this chapter is to identify the top 5 key priority actions for the sector based on a consolidation of the analysis from previous chapters. This chapter will indicate the recommended skills priority actions that the MQA will prioritise for the cycle 2017-18, which will reflect the operational priorities inherent in the MQA's Strategic in its quest to implement its various learning interventions for the MMS as it aligns with national priorities.

The key findings of this report are as follows:

- The main change drivers currently impacting the MMS are: technology, together with Mining Phakisa, as it impacts skills planning in terms of the need to ensure that learners graduate with knowledge of and experience in the latest technology being used in the sector; retrenchments, as the widespread downscaling of operations across the sector owing to decreased global demand for mined commodities has led to large-scale retrenchment drives, resulting in the need to prioritise portable skills training; and transformation, as targets contained in the Mining Charter are designed to redress historical imbalances.
- The current Mining Charter stipulates that there should be at least 40% participation from HDSAs in management positions. While HDSAs constitute 50% at the mid management level, exceeding the target, HDSAs are underrepresented at top and senior management levels, falling below the 40% target at 28.9% and 35.2% respectively.
- The 10 most hard-to-fill occupations are Mining Manager, Mining Planner, Mining Engineer, Rock Engineer, Surveyor, Rigger Ropesman, Diesel Mechanic, Boilermaker, Instrumentation Mechanician and Fitter. Experts believe that the most concerning are Mining Manager, Rock Engineer, Diesel Mechanic and Rigger Ropesman.
- The primary reasons for skills gaps are outdated technology at colleges; insufficient and irrelevant workplace experience; low levels of Maths and Science; insufficient access to high quality career awareness; geographic location; employment equity; lack of GCCs; lack of management skills; lack of interest from youth in certain occupations; and industry attractiveness.
- The main supply-side concerns were found to be as follows:
  - o Basic education: low levels of Maths & Science; and insufficient access to career awareness.
  - o TVET College sector: lack of practical training at colleges; and outdated curricula at colleges.
  - o HET sector: lack of career awareness for Rock Engineering, a specialisation of Mining Engineering; and a probable over-supply of Geologists.
  - o Other (not specific to a level of education): Declining GCC achievement numbers for core MMS-related occupations; and lack of management skills.
- The MQA's targets for Maths & Science and career awareness events were exceeded in 2015-16. Stakeholders believe, however, that there is room for improvement and that the initiatives should be monitored for impact, given the importance of Maths and Science as building blocks for the majority of occupations in the sector, and with career awareness' potential to disseminate accurate information as well as draw the right skills and potential to the sector.
- The outlook of the MMS would be improved if the sector monitors the developments of Mining Phakisa and prepares existing and potential employees accordingly; and takes advantage of the implementation of the Mineral Beneficiation Action Plan (MBAP) and the SIPs projects, which are expected to increase economic activity and create new jobs.
- With regard to green skills, the industry is becoming more conscious of the growing need to protect the environment, with increased enforcement of legislation and consumer pressure driving the demand for eco-compliance. Skilled workers will be required in energy efficiency and sourcing of 'green' products and services and managing 'green' supply chains. Alternative sources of energy are also being prioritised owing to the increasing costs of electricity which impact production and profitability.



## RECOMMENDED PRIORITY 1: SUPPORT TRANSFORMATION OF THE SECTOR THROUGH SKILLS DEVELOPMENT

Employment Equity plays a key role in South Africa's transformation agenda. In order for the MQA to support this national priority, it will continue to prioritise skills development to enable an increase in the number of Historically-Disadvantaged South Africans (HDSAs). These include, and are not limited to, undertaking skills development interventions to capacitate more men and women to occupy management and supervisory roles, with emphasis on enabling women to occupy positions in core mining occupations. The MQA will also prioritise skills development interventions to respond to the disabled, i.e. those individuals already employed, and those seeking employment in the sector with a view to increasing their representation.

The current Mining Charter stipulates that there should be at least 40% participation from HDSAs in management positions. HDSAs in particular are believed to be underrepresented at top and senior management levels, this is supported by the MQA's WSP submissions which show that they fall below the target. The MQA intends to continue supporting black individuals in and for management roles, which includes support to individuals in its Management Development Programmes. It is also recommended that management programmes for engineering students be targeted for support, to pre-empt their advancement to managers of mining operations at later stages of their careers. Discretionary grants could be used to support industry in the development of women for senior and executive management positions if the proposed higher targets are gazetted in a new Mining Charter.

The widespread downscaling of operations across the sector owing to decreased global demand has led to large-scale retrenchment drives, resulting in the urgent need for MQA to prioritise portable skills training and support industry in this where possible. Owing to the cyclical nature of the industry, it is believed that these initiatives need to take place as a pre-emptive measure, before retrenchments are a consideration, since retrenchment is a very stressful event and the person is therefore not likely to be thoroughly engaged in a training programme. Additionally, research should be undertaken with employers and employees to determine what the most relevant and useful training programmes for employees would be. The lay-off scheme could also be considered as part of a solution.

The MQA will also continue to support programmes such as lecturer development programmes and Rural Development Projects aimed at addressing equity and transformational imperatives within the sector. With regard to Maths and Science, a strong suggestion from national and regional stakeholders is to focus efforts on the development of teachers, as well as to focus on fewer beneficiaries, to ensure impact. It was believed that funding be directed at those who are applying for bursaries, and as a condition before commencement of studies.

With regard to career awareness, stakeholders believed that events should provide sufficient detail that a person is empowered to make an informed decision regarding whether or not a particular career might be suited to them or not, thus potentially avoiding career changes and unnecessary training expenditure at a later stage. It is also important to continue to emphasise the positive effects on future job prospects of pursuing Maths and Science until Grade 12, and partner effectively to increase access to career awareness to high school learners.

People with disabilities consistently represent less than 1% of the labour force in the MMS. It is proposed that the MQA plays a more active role in supporting people with disabilities to acquire skills to take up employment in the sector, and increase skills development interventions for those already employed.

## RECOMMENDED PRIORITY 2: CORE MINING SKILLS MUST CONTINUE TO BE DEVELOPED THROUGH SKILLS PROGRAMMES

In order to ensure a sufficient pool of skills for the sector in the long-term, it is important that the MQA continues to support and fund programmes which are core to the sector. These should include learnerships, both non-artisan and artisan. This will also involve improved monitoring and evaluation of training delivery and quality. Capacity-building of



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TVET College lecturers will also continue to be supported to ensure that this improves the quality and relevance of public sector training.

Technological change in the sector is currently affecting numerous occupations including Rock Drill Operator, Blaster, Drill Rig Operator as well as most of the artisan trades. The MQA will need to direct funding towards upskilling programmes so that employees are trained in new mechanised processes, as well as provide support where possible to identified TVET Colleges which are not up-to-date with latest technology, and allocate funding to workplace experience at suppliers of new technology. With regard to Mining Phakisa, it will be crucial for the MQA to stay abreast of its R&D and manufacturing developments to understand the skills implications, as the time-frame goals are relatively short: 5 years for remote drill-and-blast mechanisation and 10 years for 24/7 mechanisation. Up-skilling and re-skilling of workers for mining, manufacturing, agriculture, etc. will be necessary to ensure a just transition to future mining. It will be essential for the MQA to continue to be included in the skills planning discussions at Mining Phakisa Labs, to monitor developments and their implications on skills. Research still needs to be conducted on the potential impact of new mechanised methods on various skills, and the training that will be required for each to adapt accordingly, a study which the MQA could consider driving. A strong focus on AET programmes up to level 4 as a way of improving literacy and numeracy levels will be important for the MQA over the next 5 years to assist in preparing existing and potential employees to operate new machinery and coordinate new processes.

Interventions to ensure employability of graduates will also be prioritised through various workplace training mechanisms. There will continue to be collaboration with industry to provide valuable workplace experience, via work-integrated learning for TVET College learners, P1 and P2 training for University of Technology students, and internships for university undergraduates.

The 10 most hard-to-fill occupations (Mining Manager, Mining Planner, Mining Engineer, Rock Engineer, Surveyor, Rigger Ropesman, Diesel Mechanic, Boilermaker, Instrumentation Mechanician and Fitter), will be prioritised in terms of skills planning initiatives, with a particular focus on Mining Manager, Rock Engineer, Rigger Ropesman and Diesel Mechanic. The reasons behind these occupations being hard to fill differ, as discussed in chapter 3, and must therefore be considered individually and uniquely where interventions are concerned. This is addressed in the PIVOTAL list.

With regard to the Government Certificates of Competence, the MQA should monitor the research being undertaken to understand the declining achievement numbers, as they are an important requirement for some of the core MMS qualifications such as Mining Engineer and Mine Manager.

### RECOMMENDED PRIORITY 3: MONITOR AND DEVELOP THE SKILLS REQUIRED FOR MINERALS BENEFICIATION

South Africa's Minerals Beneficiation Strategy is planning to transform the industry from being largely resource-based to knowledge-based. In order for this to succeed, greater collaboration between the MQA, industry councils and jewellery manufacturers needs to be put in place and official partnerships formed and sustained with mutual firm commitments to chart the way forward to revive the industry. In particular, the MQA will seek to ensure an adequate and relevant supply of skills to the sector. Qualifications will need to be carefully scoped against industry requirements, with a longer term view of the type of workforce in mind.

With regard to minerals beneficiation, greater collaboration is needed between the MQA and the government departments working on implementing the Mineral Beneficiation Implementation Plan, to understand in advance what the skills requirements will be, in order to respond accordingly and timeously. Where the jewellery manufacturing sector is concerned, a consideration for the MQA would be to conduct research into possible ways to revive the sector and to facilitate engagement on the possible removal of red tape which would open up doors for local skills development. Two such examples are diamond cutting and polishing which are mostly conducted abroad owing to enforced legislation in South Africa.



## RECOMMENDED PRIORITY 4: CONTINUE TO IMPROVE HEALTH AND SAFETY STANDARDS

Mining is an activity with inherent risks that can impact on the health and safety of employees. Additionally, a company's licence to operate is jeopardised when there are fatalities, injuries and occupational injuries. The government has put in place legislation and associated processes to ensure the safety of workers is paramount as a key feature of the sustainability of the mining sector. Indeed, in this respect, one of the MQA's legislative mandates is to improve the health and safety standards and it must continue to be a priority. The results of this have been already realised notwithstanding other interventions by those in the sector. There has been a notable decrease in mining injuries and fatalities, with total fatalities decreasing sharply from a peak of 744 per year in 1989 to 77 in 2015.

The MQA will, therefore, continue its progress regarding OHS skills capacity and training in the industry, through the following measures:

- Support skills development in OHS Skills programmes.
- Train OHS Representatives over 5 years as required by the Mine Health and Safety Tripartite Leadership Summit Agreement signed on 5<sup>th</sup> September 2008.

There were indications at the regional meetings that there is a challenge in finding Mine Environmental Hygienists and OHS Practitioners, particularly in remote areas of the country. While these occupations did not make the top 10 'hard-to-fill' list or the scarce skills list, they represent key skills for the sector. It is proposed that MQA should explore reasons which contribute to a possible supply shortfall and if necessary determine the solutions which will mitigate them.

## RECOMMENDED PRIORITY 5: DEVELOP SKILLS FOR SUSTAINABILITY

One of the most pressing challenges for the MMS is the potential damage being done to the environment by mining operations. Reducing water levels, together with inadequate recycling initiatives will also have significant and far-reaching consequences if not addressed soon. Proactive efforts to mitigate this challenge should be undertaken by the MQA in partnership with other government departments. There is need to understand the seriousness of the issue, and in particular whether there are adequate skills to address it. A range of skills from demand determination to regulatory roles in the approval and enforcement of water use licences, will likely be required. It is anticipated that support would include short (top-up) courses and the establishment of networks/communities of practice.

It is also recommended that partnerships be formed with industry including Eskom, the Fossil Fuel Foundation, Mintek, SANEDI, DST and the NRF to complement their funding for cleaner production research (i.e. in clean technology and processes), and in the effective remediation of the impacts of mining on air, soil and water quality.

Research is underway to explore what the 'green skills' needs are within the entire mining value chain, including whether or not any are considered scarce.

Alternative, including "greener", sources of energy are being prioritised in the industry owing to the increasing costs of electricity which impact production and profitability, which will require the necessary skills in order to adapt current processes and operations.

## CONCLUSION

As a result of the findings in this SSP, the following skills priorities are recommended to the MQA:

- Priority 1: Support transformation of the sector through skills development
- Priority 2: Core mining skills must continue to be developed through skills programmes
- Priority 3: Monitor and develop the skills required for Minerals Beneficiation
- Priority 4: Continue to improve Health and Safety standards
- Priority 5: Develop skills for sustainability.



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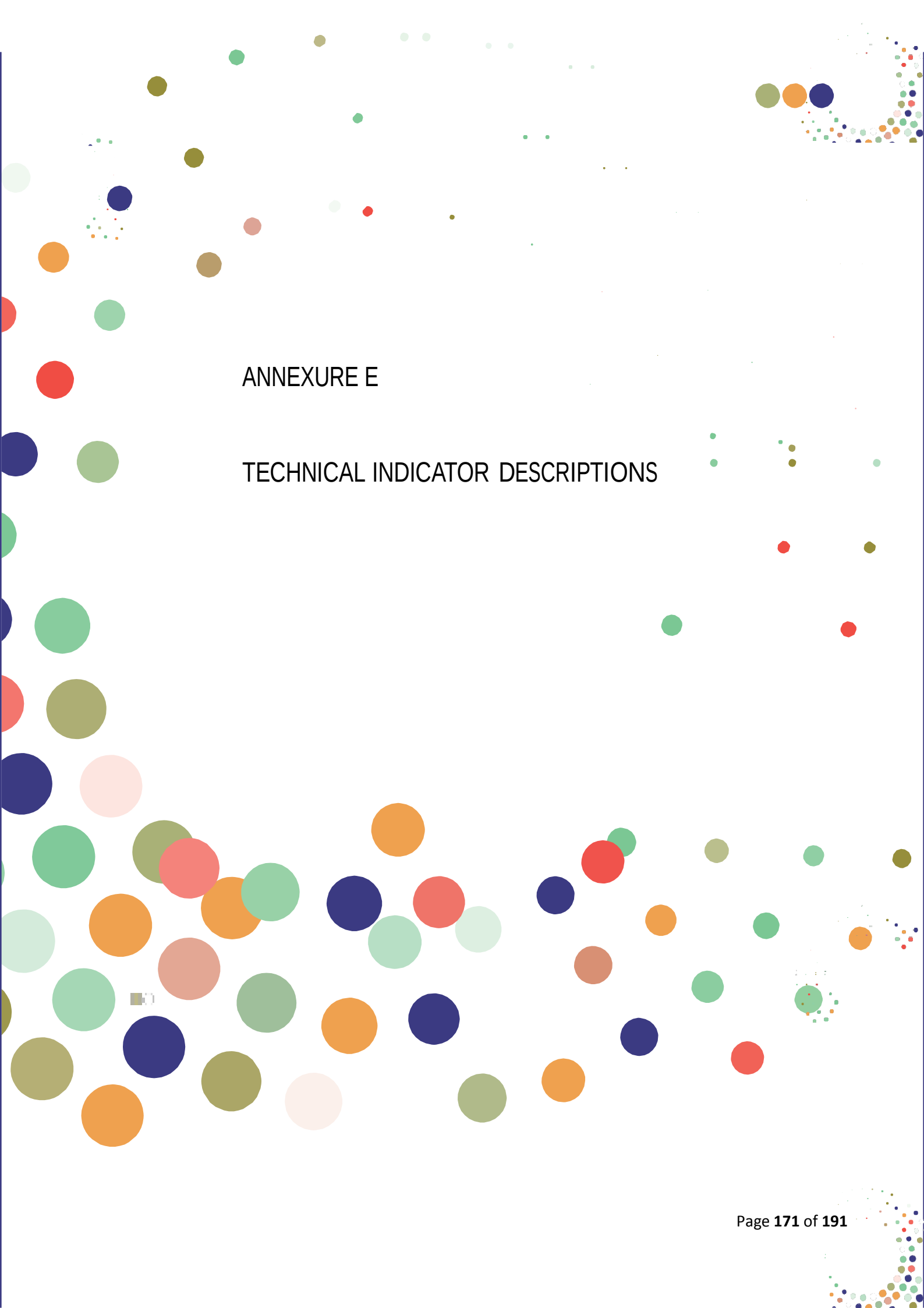
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## ANNEXURE E

### TECHNICAL INDICATOR DESCRIPTIONS

| Indicator Title           | 1.2 MQA organization wide compliance report                                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | The organisation adheres to all relevant and current legislation and regulations. This includes the Public Finance Management Act (PFMA) and Mining Qualifications Authority (MQA) constitution. |
| Purpose/importance        | Ensures that all legal requirements are complied with and effected in full                                                                                                                       |
| Source/collection of data | All business units                                                                                                                                                                               |
| Method of calculation     | Compliance report                                                                                                                                                                                |
| Data limitations          | The sample size might not be representative of the population and as result not be transferrable to a larger population                                                                          |
| Type of indicator         | Output                                                                                                                                                                                           |
| Calculation type          | Cumulative                                                                                                                                                                                       |
| Reporting cycle           | Yearly                                                                                                                                                                                           |
| New Indicator             | No                                                                                                                                                                                               |
| Desired performance       | The aim is to ensure 100% compliance monitoring with all relevant legislation, policies and reporting in a manner which ensures the sustainability of the MQA                                    |
| Indicator responsibility  | Chief Risk Monitoring and Evaluation Officer                                                                                                                                                     |

| Indicator Title           | 1.3 Percentage utilization of BEE level 1-4 suppliers                                                                                                                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Implement supplier development initiatives that is responsive to the socio – economic responsibilities and needs and gives effect to enhancing relationships with SMME's and BEE vendors with the view of building the supplier community to become economically viable |
| Purpose/importance        | Developing an enabling environment that facilitates BBBEE and SME supplier development initiatives that ensures government's socio- economic responsibility                                                                                                             |
| Source/collection of data | Quarterly performance; Supplier intervention reports; Monitoring through the units shared drive                                                                                                                                                                         |
| Method of calculation     | Number of reports                                                                                                                                                                                                                                                       |
| Data limitations          | None indicator                                                                                                                                                                                                                                                          |
| Type of indicator         | Outputs                                                                                                                                                                                                                                                                 |
| Calculation type          | Simple count                                                                                                                                                                                                                                                            |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                               |
| New Indicator             | No                                                                                                                                                                                                                                                                      |
| Desired performance       | Developed relationship between vendors that is responsive to procurement requirements                                                                                                                                                                                   |
| Indicator responsibility  | Chief Financial Officer                                                                                                                                                                                                                                                 |

| Indicator Title           | 1.4 Percentage of MQA projects monitored per annum.                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | This indicator aims to increase monitoring and evaluation activities on all MQA interventions.                                                                                                                        |
| Purpose/importance        | This indicator is important because the activities determine the value for money spent on MQA interventions.                                                                                                          |
| Source/collection of data | Monitoring and evaluation reports on programme and projects that are verified and validated                                                                                                                           |
| Method of calculation     | Each monitoring and evaluation activity is counted once however the same intervention can be assessed more than once                                                                                                  |
| Data limitations          | N/A                                                                                                                                                                                                                   |
| Type of indicator         | This indicator measures monitoring and evaluation activities                                                                                                                                                          |
| Calculation type          | Cumulative for the financial year                                                                                                                                                                                     |
| Reporting cycle           | Quarterly                                                                                                                                                                                                             |
| New Indicator             | No                                                                                                                                                                                                                    |
| Desired performance       | The indicator measures the effectiveness of MQA interventions and monitors projects against risk and wasteful expenditure. Increased monitoring and evaluation activities will ensure good governance of MQA projects |
| Indicator responsibility  | Chief Risk Monitoring and Evaluation Officer                                                                                                                                                                          |

| Indicator Title           | 3.5a Number of HDSA lecturers that enter into a lecturer development programme per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Universities are supported to provide work exposure opportunities for identified HDSA individuals with the desire to become lecturers in the technical mining disciplines. Support that is provided includes lecturer salaries as well as identified development for the student lecturer at the University. In addition work experience is built up. Universities are supported yearly for a maximum of 3 years:<br>The universities to be supported are: <ul style="list-style-type: none"> <li>• UJ</li> <li>• WITS</li> <li>• UNISA</li> <li>• University of Fort Hare</li> <li>• University of Rhodes</li> <li>• University of Limpopo</li> <li>• University of Venda</li> <li>• University of Pretoria</li> <li>• University of Cape Town</li> <li>• University of Kwa-Zulu Natal</li> </ul> |
| Purpose/importance        | Students at the HE level may easily understand and align themselves with HDSA lecturer role models. Institutions develop HDSAs with the plan to transform their organisations in line with current legislation. Sufficient numbers of HDSAs are ready for lecturer opportunities in the future at transformed HEIs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Source/collection of data | The relevant universities provide progress reports on a quarterly basis to the MQA, as well as salary payslips are provided on a quarterly basis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Method of calculation     | A simple count of the number of lecturers supported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Data limitations          | Availability of qualified HDSAs in mining and minerals sector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Type of indicator         | The output of lecturer readiness to fill a lecturer post is to be measured                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Calculation type          | The reported performance is cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Reporting cycle           | This indicator is reported on a quarterly basis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| New Indicator             | This indicator has not changed significantly from the previous financial year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Desired performance       | Desired performance is based on budget availability, the intention is to support more lecturers at both the junior or senior levels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Indicator Title           | 3.7c Number of learners that complete an artisan aides programme per annum                                                                                                                               |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed learners completed Artisan Aides<br>It is a learning pathway that teaches the skills and competencies necessary to perform tasks to an industry standard, and it leads to a trade qualification |
| Purpose/importance        | To give employed learner institutional training and workplace experience and a qualification upon completion                                                                                             |
| Source/collection of data | Certificate.                                                                                                                                                                                             |
| Method of calculation     | Simple count: Each employed learner is reported against Learning Programme certificate once                                                                                                              |
| Data limitations          | Incorrectly captured and uploaded learner achievements on the MIS by the Training Provider. Incorrectly captured information of the learner on the MIS                                                   |
| Type of indicator         | Output Indicator                                                                                                                                                                                         |
| Calculation type          | Cumulative for the year                                                                                                                                                                                  |
| Reporting cycle           | Quarterly                                                                                                                                                                                                |
| New Indicator             | No                                                                                                                                                                                                       |
| Desired performance       | Desired performance is meeting the target of 300                                                                                                                                                         |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                                                  |

| Indicator Title           | 3.18 Number of grades 10, 11 and 12 learners supported to complete Maths and Science subjects                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | MQA supports grades 10, 11 and 12 Maths and Science within the rural and urban areas to gain access in the MMS and our bursary scheme                                |
| Purpose/importance        | To support grades 10, 11 and 12 Maths and Science within the rural and urban areas to gain access in the MMS and our bursary scheme                                  |
| Source/collection of data | Service Level Agreement with the appointed Service Provider<br>List of grades 10, 11 and 12 learners to be supported<br>Learner enrolment form and certified ID copy |
| Method of calculation     | This is a simple addition of the numbers of learners at grades 10, 11 and 12 supported                                                                               |
| Data limitations          | Buy-in from the Department of Basic Education<br>Mining community and Community buy-in Type of                                                                       |
| indicator                 | This indicator measures output Calculation type<br>The performance is cumulative                                                                                     |
| Reporting cycle           | The indicator is reported quarterly                                                                                                                                  |
| New Indicator             | This is not a new indicator; it's a continuing indicator with the same target from the previous year                                                                 |
| Desired performance       | The MQA desires higher performance from the learners<br>MQA desires that learners pursue a career within the MMS                                                     |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                |

| Indicator Title           | 3.2a Number of HDSA MMS employees that enter management development programme per annum.                                                                                                                                                                                                                                                          |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | MQA supports employers, to provide a list of HDSA employees to become qualified in management skills                                                                                                                                                                                                                                              |
| Purpose/importance        | To support HDSA employees that are employed within the MMS to undergo training in Management Development Programmes with an accredited institution<br>This indicator translates to transformation within the country. The importance of this indicator is the contribution towards a transformed management level at organisations within the MMS |
| Source/collection of data | The employer submits a list of employees and certified ID copies<br>MOA with the employer and signed tripartite contracts                                                                                                                                                                                                                         |
| Method of calculation     | This is a simple addition of learners supported                                                                                                                                                                                                                                                                                                   |
| Data limitations          | Release of employee to undergo the Management Development Programme                                                                                                                                                                                                                                                                               |
| Type of indicator         | This indicator measures output, the employee undergo training in the required Management Development Programme                                                                                                                                                                                                                                    |
| Calculation type          | The performance is cumulative                                                                                                                                                                                                                                                                                                                     |
| Reporting cycle           | The indicator is reported quarterly                                                                                                                                                                                                                                                                                                               |
| New Indicator             | This is not a new indicator; it is a continuing indicator with additional numbers to the target from the previous year                                                                                                                                                                                                                            |
| Desired performance       | The MQA desires higher performance and to have more HDSA employees receiving training in management skills                                                                                                                                                                                                                                        |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                             |



| Indicator Title 3.2b Number of HDSA MMS employees that complete a management development programme per annum |                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition                                                                                             | MQA supports employers, to provide a list of HDSA employees on management development programmes                                                                                                                                                                                                                                                  |
| Purpose/importance                                                                                           | To support HDSA employees that are employed within the MMS to complete training in Management Development Programmes with an accredited institution<br>This indicator translates to transformation within the sector. The importance of this indicator is the contribution towards a transformed management level at organisations within the MMS |
| Source/collection of data                                                                                    | The employer submits a list of employees and ID copies<br>MOA with the employer and signed tripartite contracts and certified certificates                                                                                                                                                                                                        |
| Method of calculation                                                                                        | This is a simple addition of learners that complete the management development programme in the financial year                                                                                                                                                                                                                                    |
| Data limitations                                                                                             | Release of employee to undergo the Management Development Programme                                                                                                                                                                                                                                                                               |
| Type of indicator                                                                                            | This indicator measures output and the employee completes training in the required Management Development Programme                                                                                                                                                                                                                               |
| Calculation type                                                                                             | The performance is cumulative                                                                                                                                                                                                                                                                                                                     |
| Reporting cycle                                                                                              | The indicator is reported quarterly                                                                                                                                                                                                                                                                                                               |
| New Indicator                                                                                                | This is not a new indicator; it is a continuing indicator with additional numbers to the target from the previous year                                                                                                                                                                                                                            |
| Desired performance                                                                                          | The MQA desires higher performance and to have more qualified HDSA employees to become managers.                                                                                                                                                                                                                                                  |
| Indicator responsibility                                                                                     | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                             |

| Indicator Title 3.4a Number of HDSA MMS learners that enter a candidacy programme per annum |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition                                                                            | Number of unemployed/employed graduates placed in structured work-based programmes at host companies, the graduate undergoes learning that will lead to readiness for the panel examination. This affords the graduate workplace learning that supports the qualification that has been achieved at the HEI. The support is for a one-year duration<br><br>List of Disciplines Supported for Internships <ul style="list-style-type: none"> <li>• Mechanical Engineering</li> <li>• Electrical Engineering</li> <li>• Mine Engineering</li> <li>• Mine Survey</li> </ul> |
| Purpose/importance                                                                          | To ensure that graduates get the work experience and training in the MMS which relate to their qualification in order for them to be ready for relevant certificate of competence within the MMS                                                                                                                                                                                                                                                                                                                                                                         |
| Source/collection of data                                                                   | Submission of application forms and, signed tripartite candidacy contracts, signed MOAs with mining companies                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Method of calculation                                                                       | Simple count of the number of graduates placed for the one-year work based learning in the financial year                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Data limitations                                                                            | Host employers not adhering to set timelines for submissions of contracts which affect reporting of graduates that are on the candidacy programmes                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Type of indicator                                                                           | Output – graduates that are placed for the work exposure with the aim of ultimately attaining a GCC/CoC                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Calculation type                                                                            | Cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Reporting cycle                                                                             | Quarterly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| New Indicator                                                                               | This is a new indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Desired performance                                                                         | All the individuals complete and attain their GCC or CoC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Indicator responsibility                                                                    | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| Indicator Title           | 3.4b Number of HDSA MMS learners that complete a candidacy programme per annum.                                                                                                                                                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | <p>Number of unemployed graduates completing structured work experience programmes or absorbed into employment</p> <p>List of Disciplines Supported for Internships</p> <ul style="list-style-type: none"> <li>• Electrical Engineering</li> <li>• Mechanical Engineering</li> <li>• Mine Engineering</li> <li>• Mine Survey</li> </ul>                                           |
| Purpose/importance        | To ensure that graduates complete the work experience and readiness programmes for attainment of the GCC or CoC                                                                                                                                                                                                                                                                   |
| Source/collection of data | From Mining companies. Tripartite candidacy contracts, MOAs with companies. Letter from companies indicating that graduates have completed their structured 1- year programme                                                                                                                                                                                                     |
| Method of calculation     | <p>Simple count – each learner is counted once for the structured work based programme that is completed. The count is of graduates that entered programmes in previous years and complete the 1- year programme in current financial year and,</p> <p>The count could include graduates that have been placed in this financial year completed the programme within the year</p> |
| Data limitations          | Timeous reporting of learners completing the structured work experience                                                                                                                                                                                                                                                                                                           |
| Type of indicator         | <p>Output – graduates that complete their respective candidacy programme</p> <p>Outcome – graduates attain their GCC or CoC</p>                                                                                                                                                                                                                                                   |
| Calculation type          | Cumulative                                                                                                                                                                                                                                                                                                                                                                        |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                                                                                         |
| New Indicator             | This is a new programme                                                                                                                                                                                                                                                                                                                                                           |



| Indicator Title           | 2.1 Number of Skills Development Facilitator capacity building workshops per annum.                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of skills development facilitators trained within the financial year under review                                                                         |
| Purpose/importance        | To empower skills development facilitators to facilitate and report training at organisational level (non-pivotal training)                                      |
| Source/collection of data | Signed Attendance Registers                                                                                                                                      |
| Method of calculation     | Simple count: each skills development facilitators' workshop is counted once for each training intervention                                                      |
| Data limitations          | The inaccuracy of SDF details currently registered on the MQA database                                                                                           |
| Type of indicator         | Output Indicator – Improved quality of WSP/ATR submission                                                                                                        |
| Calculation type          | Cumulative                                                                                                                                                       |
| Reporting cycle           | Quarterly                                                                                                                                                        |
| New Indicator             | No                                                                                                                                                               |
| Desired performance       | The indicator must improve the understanding of planning, implementing and reporting of training for skills development facilitators for the improvement of data |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                          |

| Indicator Title           | 2.2 Number of Skills Development Committee Member capacity building workshops per annum.                                                                                                             |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of skills development committee members trained within the financial year under review.                                                                                                       |
| Purpose/importance        | To empower skills development committee members to facilitate and report training at organisational level more effectively through training development                                              |
| Source/collection of data | Signed Attendance Registers                                                                                                                                                                          |
| Method of calculation     | Simple count: each skills development committee member workshop is counted once for each training intervention.                                                                                      |
| Data limitations          | The inaccuracy and lack of SDC details currently registered on the MQA database                                                                                                                      |
| Type of indicator         | Output Indicator – Improved quality of WSP/ATR submission                                                                                                                                            |
| Calculation type          | Cumulative                                                                                                                                                                                           |
| Reporting cycle           | Quarterly                                                                                                                                                                                            |
| New Indicator             | No                                                                                                                                                                                                   |
| Desired performance       | The indicator must improve the understanding of planning, implementing and reporting of training for skills development committee members and increase broad based participation for skills planning |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                                              |

| Indicator Title           | 2.4 Number of sector research output completed per annum.                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Conduct research projects as per the annual research agenda for the financial year under review.                                               |
| Purpose/importance        | Develop a continuous credible knowledge repository to inform decision making and programme implementation                                      |
| Source/collection of data | Signed agreements and research report (progress reports, draft reports and final reports) Simple count -                                       |
| Method of calculation     | Each research project is counted once                                                                                                          |
| Data limitations          | Inaccessibility and inaccurate data collected in the MMS sector, access to field (company availability and participation in research projects) |
| Type of indicator         | Output – Informed decision making and programme identification and implementation                                                              |
| Calculation type          | Non- Cumulative – for the year                                                                                                                 |
| Reporting cycle           | Quarterly                                                                                                                                      |
| New Indicator             | No                                                                                                                                             |
| Desired performance       | The indicator is to contribute to the credible knowledge repository in the credible knowledge repository in the MMS                            |
| Indicator responsibility  | Chief Operating Officer                                                                                                                        |



| Indicator Title           | 2.3 Number of Workplace Skills Plan (WSPs) and Annual Training Reports (ATRs) evaluate for Small, Medium and Large Levy Paying Firms to access mandatory grants per annum. |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | The number of small, medium and large Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) evaluated as per the financial year under review                    |
| Purpose/importance        | To evaluate WSP-ATR submissions to ensure compliance and adherence to MQA WSP/ATR Quality standards as per the MQA Funding policy                                          |
| Source/collection of data | Signed and submitted WSP-ATR within the legislated timeframes                                                                                                              |
| Method of calculation     | Simple count - Each WSP-ATR (linked to an SDL number) is counted once                                                                                                      |
| Data limitations          | Inaccurate and limited reporting on submission of WSP-ATR submission. Non-readiness of Evaluation Model                                                                    |
| Type of indicator         | Output – Evaluation sheet per WSP-ATR submitted                                                                                                                            |
| Calculation type          | Cumulative – for the year                                                                                                                                                  |
| Reporting cycle           | Quarterly                                                                                                                                                                  |
| New Indicator             | No                                                                                                                                                                         |
| Desired performance       | The indicator must ensure correlation between planned training interventions versus actual training reported                                                               |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                    |

| Indicator Title           | 2.5 Collaborate with Higher Education Institutions regarding skills development research in the MMS                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Partnering with an institution to produce research report for the financial year under review                               |
| Purpose/importance        | To build value-adding partnerships with credible institutions of Higher Learning in enhancing the MQAs knowledge repository |
| Source/collection of data | Signed agreements and research papers                                                                                       |
| Method of calculation     | Simple count - Each partnership and research report is counted once                                                         |
| Data limitations          | Procurement challenges as HEIs and public entities do not want to participate in the bidding process with the MQA           |
| Type of indicator         | Output – Research Papers                                                                                                    |
| Calculation type          | Non - Cumulative                                                                                                            |
| Reporting cycle           | Quarterly                                                                                                                   |
| New Indicator             | No                                                                                                                          |
| Desired performance       | Increase knowledge repository for the MQA                                                                                   |
| Indicator responsibility  | Chief Operating Officer                                                                                                     |

| Indicator Title           | 1.7 Number of Career Guidance Events held per annum.                                                                                                                                                               |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of learners that attend career guidance workshops and exhibitions within the financial year under review.                                                                                                   |
| Purpose/importance        | To provide career guidance information to learners from grades 9-12 in rural areas in all nine provinces                                                                                                           |
| Source/collection of data | Register on career exhibitions attendance based on annual research, planning and invitations obtained as well as signed attendance registers of learners or schools                                                |
| Method of calculation     | Simple count: each event is documented and learners are counted on the attendance registers                                                                                                                        |
| Data limitations          | Limited human resources to attend the events, lack of operational participation, shortage of materials, budget constraints, weekend and public holiday invitations short notice                                    |
| Type of indicator         | Output Indicator – Improved information distributed to learners and an increased number of learners applying for bursaries and pursuing mining related careers                                                     |
| Calculation type          | Cumulative                                                                                                                                                                                                         |
| Reporting cycle           | Quarterly                                                                                                                                                                                                          |
| New Indicator             | No                                                                                                                                                                                                                 |
| Desired performance       | The indicator must improve the understanding of mining related careers, which will facilitate an increased number of learners studying Maths and Science and applications for bursaries for mining related careers |
| Indicator responsibility  | Executive Manager Corporate Services                                                                                                                                                                               |



| Indicator Title           | 3.8a Number of learners that entered AET programme levels 1 – 4.                                                                                                        |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Unemployed learners registered on AET Programme<br>Foundational learning programme that address low level of youth and adult language and numeracy skills in the sector |
| Purpose/importance        | To give unemployed learner numeracy and literacy that will enable them to get a qualification                                                                           |
| Source/collection of data | AET enrolment form, learners highest qualification and certified ID copy, DHET QMR data, SLA, and MOA for SETA funded                                                   |
| Method of calculation     | Simple count: Each unemployed learner is reported against AET programme once                                                                                            |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                                     |
| Type of indicator         | Output Indicator                                                                                                                                                        |
| Calculation type          | Cumulative for the year                                                                                                                                                 |
| Reporting cycle           | Quarterly                                                                                                                                                               |
| New Indicator             | No                                                                                                                                                                      |
| Desired performance       | Desired performance is meeting the target of 4 700                                                                                                                      |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                                |

| Indicator Title           | 3.8b Number of learners that successfully completed AET programme levels 1 – 4.                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Unemployed learners registered on AET Programme.<br>Foundational Learning Programme address low level skills for adult and youth in the sector         |
| Purpose/importance        | To give unemployed and employed learner numeracy and literacy that will enable them to get a qualification                                             |
| Source/collection of data | AET enrolment form, certified ID copy and signed certificate and/or signed statement of Results from IEB or Benchmark and MQA for GETC Level 1/Level 4 |
| Method of calculation     | Simple count: Each employed and unemployed learner is reported against AET Programme once                                                              |
| Data limitations          | Incorrectly captured and uploaded learner achievements on the MIS by the Training Provider. Incorrectly captured information of the learner on the MIS |
| Type of indicator         | Output Indicator                                                                                                                                       |
| Calculation type          | Cumulative for the year                                                                                                                                |
| Reporting cycle           | Quarterly                                                                                                                                              |
| New Indicator             | No                                                                                                                                                     |
| Desired performance       | Desired performance is meeting the target of 2 500                                                                                                     |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                               |

| Indicator Title           | 3.8c Number of learners that successfully complete FLC programmes.                                                                                                     |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed and Unemployed learners registered on FLC Programme<br>Foundational Learning Programme address low level skills for learners who requiring fundamental skills |
| Purpose/importance        | To give unemployed and employed learner numeracy and literacy that will enable them to get a qualification                                                             |
| Source/collection of data | IEB results and certified ID copies/statement of results, DHET QMR data, SLA, and MOA for SETA funded                                                                  |
| Method of calculation     | Simple count: Each unemployed and employed learner is reported against FLC Programme once                                                                              |
| Data limitations          | Incorrectly submitted information to IEB for registration and external assessments                                                                                     |
| Type of indicator         | Output Indicator                                                                                                                                                       |
| Calculation type          | Cumulative for the year                                                                                                                                                |
| Reporting cycle           | Quarterly                                                                                                                                                              |
| New Indicator             | No                                                                                                                                                                     |
| Desired performance       | Desired performance is meeting the target of 270                                                                                                                       |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                               |



| Indicator Title           | 3.3a Number of Employees that enter the Occupational Health and Safety Representatives skills programme per annum                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed learners registered on OHS Programme<br>It's a core contextualised unit standards that addresses Health and Safety in the sector          |
| Purpose/importance        | To give employed learner a credit bearing Health and Safety certificate                                                                            |
| Source/collection of data | Skills Programmes Enrolment form, signed certificate/signed statement of results and certified ID copy, DHET QMR data, LA, and MOA for SETA funded |
| Method of calculation     | Simple count: Each employed learner is reported against OHS Programme once                                                                         |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                |
| Type of indicator         | Output Indicator                                                                                                                                   |
| Calculation type          | Cumulative for the year                                                                                                                            |
| Reporting cycle           | Quarterly                                                                                                                                          |
| New Indicator             | No                                                                                                                                                 |
| Desired performance       | Desired performance is meeting the target of 6 200                                                                                                 |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                           |

| Indicator Title           | 3.3b Number of Employees that successfully complete the Occupational Health and Safety Representatives skills programme per annum                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed learners completing OHS Programme<br>It's a core contextualised unit standards that addresses Health and Safety in the sector             |
| Purpose/importance        | To give employed learner a credit bearing Health and Safety certificate                                                                            |
| Source/collection of data | Skills Programmes Enrolment form, signed certificate/signed statement of results and certified ID copy, DHET QMR data, SLA and MOA for SETA funded |
| Method of calculation     | Simple count: Each employed learner is reported against OHS Programme once.                                                                        |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                |
| Type of indicator         | Output Indicator                                                                                                                                   |
| Calculation type          | Cumulative for the year                                                                                                                            |
| Reporting cycle           | Quarterly                                                                                                                                          |
| New Indicator             | No                                                                                                                                                 |
| Desired performance       | Desired performance is meeting the target of 6 200                                                                                                 |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                           |



| Indicator Title           | 3.11a Number of undergraduates that enter a workplace experience programme per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of learners placed for P1 and P2 in the financial year pursuing careers within the MMS in the following disciplines: <ul style="list-style-type: none"> <li>• Jewellery Design Manufacturing</li> <li>• Metallurgical Engineering</li> <li>• Geology</li> <li>• Mining Engineering</li> <li>• Mechanical Engineering</li> <li>• Mine Surveying</li> <li>• Electrical Engineering</li> <li>• Chemical Engineering (Mineral Processing)</li> <li>• Environmental Health and Management</li> <li>• Analytical Chemistry</li> <li>• Electro Mechanical Engineering</li> <li>• Industrial Engineering</li> </ul> |
| Purpose/importance        | To provide structured work experience to students in order to obtain mining related qualifications from universities of technologies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Source/collection of data | Host employers provide MQA with the list of students placed or to be placed for structured work experience with their work experience application forms, id copies certified and academic records certified, signed tripartite agreements and signed Memorandum of Agreements                                                                                                                                                                                                                                                                                                                                      |
| Method of calculation     | Simple count of total number of students entered work experience programmes within the financial year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| limitations               | Data Host employers not adhering to set timelines for reporting and submitting accurate total number of students placed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Type of indicator         | Output-students entering their structured work experience programme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Calculation type          | Cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reporting cycle           | Quarterly- reporting within a financial year to the Department of High Education and Training                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| New Indicator             | No significant change from previous year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Desired performance       | Students graduating after completing structured work experience programme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Indicator Title           | 3.11b Number of undergraduates that complete a work place experience programme per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of learners completing P1 and P2 programmes with the intention of attaining their qualifications in the following disciplines: <ul style="list-style-type: none"> <li>• Jewellery Design Manufacturing</li> <li>• Metallurgical Engineering</li> <li>• Geology</li> <li>• Mining Engineering</li> <li>• Mechanical Engineering</li> <li>• Mine Surveying</li> <li>• Electrical Engineering</li> <li>• Chemical Engineering (Mineral Processing)</li> <li>• Environmental Health and Management</li> <li>• Analytical Chemistry</li> <li>• Electro Mechanical Engineering</li> <li>• Industrial Engineering</li> </ul> |
| Purpose/importance        | To provide structured work experience to students in order for them to obtain mining related qualifications from universities of technology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Source/collection of data | Host employers provide MQA with a list of students who completed structured work experience programmes. ID copies certified and academic records certified, signed tripartite agreements and signed Memorandum of Agreements. Signed letters from the host employers confirming the completions of the work experience programme by the students                                                                                                                                                                                                                                                                             |
| Method of calculation     | Simple count of total number of students completed Work Experience (WE) programme in the current financial year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Data limitations          | Host employers not adhering to set timelines for reporting and submitting letters and list of accurate total number of students that completed the WE programme                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Type of indicator         | Output- students completing their structured work experience programme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Calculation type          | Cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



|                          |                                                                 |
|--------------------------|-----------------------------------------------------------------|
| Reporting cycle          | Quarterly                                                       |
| New Indicator            | No significant change from previous change                      |
| Desired performance      | Students graduating after completing structured work experience |
| Indicator responsibility | Learning Programmes Unit Manager (Strategic Projects)           |

| Indicator Title           | 3.13a Number of graduates that enter an Internship programme per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | <p>Number of unemployed graduates placed in structured work based programmes at host companies. This affords the graduate work place learning that supports the qualification that has been achieved at the HEI. The support is for a two-year duration</p> <p>List of Disciplines Supported for Internships</p> <ul style="list-style-type: none"> <li>• Analytical Chemistry</li> <li>• Chemical Engineering</li> <li>• Jewellery Design and Creative Jewellery</li> <li>• Mechanical Engineering</li> <li>• Electrical Engineering</li> <li>• Environmental Science</li> <li>• Extraction Metallurgy</li> <li>• Geology</li> <li>• Industrial Engineering</li> <li>• Metallurgy</li> <li>• Mine Engineering</li> <li>• Mine Survey</li> <li>• Safety Management</li> </ul> |
| Purpose/importance        | To ensure that graduates get the work experience in the MMS which relate to their qualification in order for them to be ready for employment within the MMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Source/collection of data | From Mining companies. Submission of application forms, signed tripartite internship contracts and signed MOAs with companies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Method of calculation     | Simple count of the number of graduates placed for work based learning in the financial year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Data limitations          | Host employers not adhering to set timelines for submissions of contracts which affect reporting of graduates that are on internship programmes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Type of indicator         | Output – graduates that are placed for the work exposure in the financial year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Calculation type          | Cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| New Indicator             | No significant change from the previous year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Desired performance       | All the individuals graduated in mining related fields are placed in the MMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Indicator Title    | 3.13b Number of graduates that complete an Internship programme per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition   | <p>Number of unemployed graduates completing structured work experience programmes or absorbed into employment.</p> <p>List of Disciplines Supported for Internships</p> <ul style="list-style-type: none"> <li>• Analytical Chemistry</li> <li>• Chemical Engineering</li> <li>• Jewellery Design and Creative Jewellery</li> <li>• Electrical Engineering</li> <li>• Environmental Science</li> <li>• Extraction Metallurgy</li> <li>• Geology</li> <li>• Industrial Engineering</li> <li>• Metallurgy</li> <li>• Mine Engineering</li> <li>• Mine Survey</li> <li>• Safety Management</li> </ul> |
| Purpose/importance | To ensure that graduates complete the work experience in the MMS organisations which relate to their qualification in order for them to be ready for employment                                                                                                                                                                                                                                                                                                                                                                                                                                     |



|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Source/collection of data | From Mining companies. Tripartite internship contracts, MOAs with companies. Letter from companies indicating that graduates have completed their structured 2- year programme or have been absorbed into employment                                                                                                                                                                                                                                             |
| Method of calculation     | Simple count – each learner is counted once for the structured work based programme that is completed or when learner is absorbed into employment<br>The count is of graduates that entered programmes in previous years and complete the 2 year programme in this financial year and,<br>The count could include graduates that have been placed in this financial year and where they have been absorbed into employment before the end of this financial year |
| Data limitations          | Timeous reporting of learners completing the structured work experience or absorbed into employment                                                                                                                                                                                                                                                                                                                                                              |
| Type of indicator         | Output – graduates that complete their respective internship programme<br>Outcome – graduates appointed permanently by mining companies                                                                                                                                                                                                                                                                                                                          |
| Calculation type          | Cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| New Indicator             | No significant change from the previous year                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Desired performance       | All the individuals graduated in mining related fields are provided with structured work integrated learning opportunities                                                                                                                                                                                                                                                                                                                                       |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                            |

|                           |                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Indicator Title           | 3.6 Number of TVET lecturers placed for work place exposure per annum                                                                                                                                                                                                                                                                                 |
| Short definition          | TVET lecturers are supported with work experience at host employers<br>The MQA pays the host employer to expose the lecturer on site, this is done within the MMS                                                                                                                                                                                     |
| Purpose/importance        | Lecturers at the TVET Colleges only have the theoretical knowledge and they don't have the practical exposure<br>The importance of this indicator is to expose TVET lecturers within the Mining site to acquire relevant practical exposure<br>MQA develops TVET lecturers to transform their practical knowledge in line with current qualifications |
| Source/collection of data | TVET Colleges provide a list of lecturers with their qualifications and the MQA secures host employers for practical exposure<br>Moa, signed Tripartite contract and certified ID copy                                                                                                                                                                |
| Method of calculation     | This is a simple addition of lecturers supported                                                                                                                                                                                                                                                                                                      |
| Data limitations          | TVET lecturer access to host employers<br>Not enough mentors at the host employer to secure space for practical exposure<br>TVET College unable to release the lecturers for practical exposure                                                                                                                                                       |
| Type of indicator         | This indicator measures output, the lecturer gains experience and is developed for readiness for lecturer roles at the TVET College Calculation                                                                                                                                                                                                       |
| type                      | The performance is cumulative                                                                                                                                                                                                                                                                                                                         |
| Reporting cycle           | The indicator is reported quarterly                                                                                                                                                                                                                                                                                                                   |
| New Indicator             | This is not a new indicator; it's a continuing indicator without any changes from the previous year.                                                                                                                                                                                                                                                  |
| Desired performance       | The MQA desires higher performance                                                                                                                                                                                                                                                                                                                    |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects).                                                                                                                                                                                                                                                                                                |



| Indicator Title           | 3.12a Number of TVET NCV graduates that enter a work placement programme per annum.                                                                                                                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | TVET learners are supported with work experience within the host employers<br>They are required to undergo the seven steps process towards being artisans                                                                                                                                                                     |
| Purpose/importance        | Learners who have obtained the NCV level 4 engineering qualification at the TVET Colleges need to undergo the seven steps of becoming a qualified artisan.<br>This indicator translates to transformation within the country<br>The importance of this indicator is to have more artisans that emanate from the TVET Colleges |
| Source/collection of data | TVET Colleges provide a list of qualified NCV level 4 learners with their qualifications and the MQA secures the host employers<br>MOA, signed tripartite contracts and certified ID copies of the learners                                                                                                                   |
| Method of calculation     | This is a simple addition of learners supported.                                                                                                                                                                                                                                                                              |
| Data limitations          | Not enough mentors within the host employer to secure space for practical exposure.<br>Host employers in the MMS refusing to host the NCV level 4 learners, and only requesting learners that have completed nated courses but this is mitigated as learners are able to be placed in other industries as well                |
| Type of indicator         | This indicator measures output, the NCV learner is registered on an artisan trade and undergoes the required training.                                                                                                                                                                                                        |
| Calculation type          | The performance is cumulative                                                                                                                                                                                                                                                                                                 |
| Reporting cycle           | The indicator is reported quarterly                                                                                                                                                                                                                                                                                           |
| New Indicator             | This is not a new indicator; it is a continuing indicator with an additional number to the target from the previous year                                                                                                                                                                                                      |
| Desired performance       | The MQA desires higher performance and to have more qualified artisans that emanate from this project.<br>The major constraint is the buy-in from both the host employer to host specifically the NCV learners within the MMS                                                                                                 |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                         |

| Indicator Title           | 3.12b Number of TVET NCV graduates that complete a work placement programme per annum.                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose/importance        | TVET learners are supported with work experience within the host employers<br>They are required to undergo the seven steps towards being artisans<br>Learners who have fully qualified on NCV level 4 at the TVET Colleges need to undergo the seven steps of becoming a qualified artisan<br>This indicator translates to transformation within the country<br>The importance of this indicator is to have more artisans that emanate from the TVET learners |
| Source/collection of data | TVET Colleges provide a list of qualified NCV level 4 learners with their qualifications and the MQA secures the host employer's, MOA, signed tripartite contracts and certified ID copies of the learners                                                                                                                                                                                                                                                    |
| Method of calculation     | This is a simple addition of learners supported                                                                                                                                                                                                                                                                                                                                                                                                               |
| Data limitations          | TVET NCV level 4 learners access to host employers and funds to undergo trade test<br>Not enough mentors within the host employer to secure space for practical exposure<br>host employers refusing to host the NCV level 4 learners, and only requesting nated course                                                                                                                                                                                        |
| Type of indicator         | This indicator measures output, the NCV learner completes the required trade test so that they become fully qualified artisans                                                                                                                                                                                                                                                                                                                                |
| Calculation type          | The performance is cumulative                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Reporting cycle           | The indicator is reported quarterly                                                                                                                                                                                                                                                                                                                                                                                                                           |
| New Indicator             | This is not a new indicator; it is a continuing indicator with an additional number to the target from the previous year                                                                                                                                                                                                                                                                                                                                      |
| Desired performance       | The MQA desires higher performance and to have more qualified artisans that emanates from this project<br>The major constraint is the buy-in from both the host employer to host specifically the NCV learners                                                                                                                                                                                                                                                |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                                                                                         |



| Indicator Title           | 3.7a Number of learners that enter an artisan programme per annum.                                                                                                                                                                                                                                           |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed and unemployed learners indentured on Artisan Learnerships<br>It is a learning pathway that teaches the skills and competencies necessary to perform the tasks to an industry standard, and it leads to a trade qualification                                                                       |
| Purpose/importance        | To give employed and unemployed learners institutional training (30%), workplace experience (70%) and a qualification upon completion                                                                                                                                                                        |
| Source/collection of data | Registered Learning Programme Agreements and supporting documents such as; certified ID copies, Training Plan, Proof of Disability for disabled learners, DHET QMR data, Learners highest qualification, Employment Contract, Affidavit, SLA, and MOA for SETA funded. Sector funded does not require an MOA |
| Method of calculation     | Simple count: Each employed and unemployed learner is reported against Learning Programme Agreement once                                                                                                                                                                                                     |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                                                                                                                                                                          |
| Type of indicator         | Output Indicator                                                                                                                                                                                                                                                                                             |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                                                                                                      |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                    |
| New Indicator             | No                                                                                                                                                                                                                                                                                                           |
| Desired performance       | Desired performance is meeting the target of 2 000                                                                                                                                                                                                                                                           |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                                                                                                                                                                     |

| Indicator Title           | 3.7b Number of learners that complete an artisan programme per annum.                                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed and Unemployed learners completed Artisan Learnerships.<br>It is a learning pathway that teaches the skills and competencies necessary to perform tasks to an industry standard, and it leads to a trade qualification |
| Purpose/importance        | To give employed and unemployed learner institutional (30%) training and workplace experience (70%) and a qualification upon completion                                                                                         |
| Source/collection of data | Certificate                                                                                                                                                                                                                     |
| Method of calculation     | Simple count: Each employed and unemployed learner is reported against Learning Programme certificate once                                                                                                                      |
| Data limitations          | Incorrectly captured and uploaded learner achievements on the MIS by the Training Provider. Incorrectly captured information of the learner on the MIS                                                                          |
| Type of indicator         | Output Indicator                                                                                                                                                                                                                |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                         |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                       |
| New Indicator             | No                                                                                                                                                                                                                              |
| Desired performance       | Desired performance is meeting the target of 2 000                                                                                                                                                                              |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                                                                                        |

| Indicator Title           | 3.10a Number of unemployed learners awarded a bursary per annum.                                                       |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of learners awarded financial assistance to study at institutions of higher learning                            |
| Purpose/importance        | Tracks the number of both new and continuing students who have been assisted financially in the current financial year |
| Source/collection of data | Number of bursary contracts signed as recorded in the bursaries database.                                              |
| Method of calculation     | Each bursar is counted once, whether they are new or continuing, it is therefore a simple count                        |
| Data limitations          | Dependent on the accuracy of the database.                                                                             |
| Type of indicator         | Input.                                                                                                                 |
| Calculation type          | One off                                                                                                                |
| Reporting cycle           | Quarterly                                                                                                              |
| New Indicator             | No                                                                                                                     |



Desired performance  
Indicator responsibility

The aim is to ensure we achieve bursary allocations of 100% as per the APP and the SLA  
Operations Process Manager



| Indicator Title           | 3.10b Number of unemployed learners awarded a bursary completing per annum.                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of bursars who graduate at an institutions of higher learning and are awarded a certificate                                        |
| Purpose/importance        | Tracks the number of bursars who completed their qualification at an institution of higher learning for which they were funded by the MQA |
| Source/collection of data | Academic transcripts and/or statements of results from institutions of higher learning used to update bursaries database                  |
| Method of calculation     | Each bursar who has qualified is counted once, it is therefore a simple count                                                             |
| Data limitations          | Dependent on the accuracy of the database                                                                                                 |
| Type of indicator         | Output                                                                                                                                    |
| Calculation type          | Cumulative                                                                                                                                |
| Reporting cycle           | Annually at the end of the academic year                                                                                                  |
| New Indicator             | No                                                                                                                                        |
| Desired performance       | The aim is to ensure the MQA achieves the highest graduations throughput                                                                  |
| Indicator responsibility  | Chief Executive Officer                                                                                                                   |

| Indicator Title           | 3.17 Number of coaches placed within workplaces to support employers with on the job mentoring and coaching activities per annum.                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employers, where interns and learners undergoing P1, P2 and vacation work, artisan and non-artisan learners are assisted with coaches to provide guidance for the completion of the structured work-based programmes                                                                                                                                                                      |
| Purpose/importance        | Students from universities and universities of technology require personal dedicated time from qualified personnel in the field to bridge the gap between academia and the workplace, some employers do not have sufficient resources within their professional, supervisory and management levels and hence this project was introduced to support the learning process at the workplace |
| Source/collection of data | A MOA is entered into with the host employer, tri-partite contracts (coach, employer and MQA) are then signed for all the coaches. Certified copy of ID. Progress reports are required every 2 months from the company                                                                                                                                                                    |
| Method of calculation     | The number of coaches supported per organisation in the MMS are added, this is reported on a quarterly basis                                                                                                                                                                                                                                                                              |
| Data limitations          | No specific limitations                                                                                                                                                                                                                                                                                                                                                                   |
| Type of indicator         | Output                                                                                                                                                                                                                                                                                                                                                                                    |
| Calculation type          | The reported performance is cumulative                                                                                                                                                                                                                                                                                                                                                    |
| Reporting cycle           | This indicator is reported on a quarterly basis.                                                                                                                                                                                                                                                                                                                                          |
| New Indicator             | This indicator has not changed significantly from the previous financial year                                                                                                                                                                                                                                                                                                             |
| Desired performance       | Desired performance is to ensure that all learners at the relevant host company are supported to ensure quality learning                                                                                                                                                                                                                                                                  |
| Indicator responsibility  | Learning Programmes Unit Manager (Strategic Projects)                                                                                                                                                                                                                                                                                                                                     |

| Indicator Title           | 3.9a Number of Unemployed learners that enter a learnerships per annum.                                                                                                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Unemployed learners registered on Non-Artisan Learnerships<br>It is a structured occupational directed programme that leads to a qualification and is not trade related                                                                                                                           |
| Purpose/importance        | To give unemployed learner institutional training (30%), workplace experience (70%) and a qualification upon completion                                                                                                                                                                           |
| Source/collection of data | Registered Learning Programme Agreements and supporting documents such as; certified ID copies, Training Plan, Proof of Disability for disabled learners, DHET QMR data, Learners highest qualification, Employment Contract, SLA, and MOA for SETA funded. Sector funded does not require an MOA |
| Method of calculation     | Simple count: Each unemployed learner is reported against Learning Programme Agreement once                                                                                                                                                                                                       |
| Data limitations          | incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                                                                                                                                                               |
| Type of indicator         | Output Indicator Calculation type                                                                                                                                                                                                                                                                 |
| cycle                     | Cumulative for the year Reporting                                                                                                                                                                                                                                                                 |
| New Indicator             | Quarterly                                                                                                                                                                                                                                                                                         |
| Desired performance       | No                                                                                                                                                                                                                                                                                                |
|                           | Desired performance is meeting the target of 2 400                                                                                                                                                                                                                                                |





|                          |                                          |
|--------------------------|------------------------------------------|
| Indicator responsibility | Learning Programmes Manager - Operations |
|--------------------------|------------------------------------------|

| Indicator Title           | 3.9b Number of Unemployed learners that complete a learnership per annum.                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Unemployed learners completed Non-Artisan Learnerships<br>It is a structured, occupational directed programme that leads to a qualification and is not trade related |
| Purpose/importance        | To give unemployed learner institutional training (30%), workplace experience (70%) and a qualification upon completion                                              |
| Source/collection of data | Signed certificate and/or signed statement of results                                                                                                                |
| Method of calculation     | Simple count: Each unemployed learner is reported against Learning Programme certificate once                                                                        |
| Data limitations          | incorrectly captured and uploaded learner achievements on the MIS by the Training Provider. Incorrectly captured information of the learner on the MIS               |
| Type of indicator         | Output Indicator                                                                                                                                                     |
| Calculation type          | Cumulative for the year                                                                                                                                              |
| Reporting cycle           | Quarterly                                                                                                                                                            |
| New Indicator             | No                                                                                                                                                                   |
| Desired performance       | Desired performance is meeting the target of 1 000                                                                                                                   |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                             |

| Indicator Title           | 3.1a Number of employees entering a learnership per annum.                                                                                                                                                                                                                                                           |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed learners registered on Non-Artisan Learnerships<br>It is a structured, occupational directed programme that leads to a qualification and is not trade related                                                                                                                                               |
| Purpose/importance        | To give employed learner institutional training (30%), practical experience (70%) and a qualification upon completion                                                                                                                                                                                                |
| Source/collection of data | Registered Learning Programme Agreements and supporting documents such as; certified ID copies, Training Plan, Proof of Disability for disabled learners, DHET QMR data, Learners highest qualification, Employment Contract/Record of Service, SLA, and MOA for SETA funded. Sector funded does not require an MOA. |
| Method of calculation     | Simple count: Each employed learner is reported against Learning Programme Agreement once                                                                                                                                                                                                                            |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                                                                                                                                                                                  |
| Type of indicator         | Output Indicator                                                                                                                                                                                                                                                                                                     |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                                                                                                              |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                            |
| New Indicator             | No                                                                                                                                                                                                                                                                                                                   |
| Desired performance       | Desired performance is meeting the target of 3 000                                                                                                                                                                                                                                                                   |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                                                                                                                                                                             |

| Indicator Title           | 3.1b Number of employees completing a learnership per annum.                                                                                                       |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Employed learners completed Non-Artisan Learnerships<br>It is a structured, occupational directed programme that leads to a qualification and is not trade related |
| Purpose/importance        | To give Employed learner institutional training (30%), practical experience (70%) and a qualification upon completion                                              |
| Source/collection of data | Certificate and/or statement of results                                                                                                                            |
| Method of calculation     | Simple count: Each employed learner is reported against Learning Programme certificate once                                                                        |
| Data limitations          | incorrectly captured and uploaded learner achievements on the MIS by the Training Provider. Incorrectly captured information of the learner on the MIS             |
| Type of indicator         | Output indicator                                                                                                                                                   |
| Calculation type          | Cumulative for the year                                                                                                                                            |
| Reporting cycle           | Quarterly                                                                                                                                                          |
| New Indicator             | No                                                                                                                                                                 |
| Desired performance       | Desired performance is meeting the target of 1 500                                                                                                                 |



| Indicator Title           | 3.1c Number of learners that complete RPL for Learnerships                                                                                                                                                                                                                                        |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | To recognise prior skills and competencies attained                                                                                                                                                                                                                                               |
| Purpose/importance        | To give employed learners institutional training and a qualification upon completion                                                                                                                                                                                                              |
| Source/collection of data | Registered Learning Programme Agreements and supporting documents such as; certified ID copies, Training Plan, Proof of Disability for disabled learners, DHET QMR data, Learners highest qualification, Employment Contract, SLA, and MOA for SETA funded. Sector funded does not require an MOA |
| Method of calculation     | Simple count: Each employed learner is reported against Learning Programme Agreement once                                                                                                                                                                                                         |
| Data limitations          | Incorrectly captured information on the MIS by the Training Provider. Submission of incomplete supporting documents                                                                                                                                                                               |
| Type of indicator         | Output Indicator                                                                                                                                                                                                                                                                                  |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                                                                                           |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                         |
| New Indicator             | No                                                                                                                                                                                                                                                                                                |
| Desired performance       | Desired performance is meeting the target of 200                                                                                                                                                                                                                                                  |
| Indicator responsibility  | Learning Programmes Manager - Operations                                                                                                                                                                                                                                                          |

| Indicator Title           | 1.6 Annual international literacy day event hosted .                                                                                                                                                                                                                                                       |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Number of delegates that attended the event                                                                                                                                                                                                                                                                |
| Purpose/importance        | To celebrate AET achievements                                                                                                                                                                                                                                                                              |
| Source/collection of data | Signed attendance registers                                                                                                                                                                                                                                                                                |
| Method of calculation     | Simple count: Each learner, company group and delegates are counted                                                                                                                                                                                                                                        |
| Data limitations          | Delays in Learning Programmes unit identifying learners in the region, NUM and task team repre-sentatives not sourcing appropriate learners                                                                                                                                                                |
| Type of indicator         | Output Indicator – Improve relationships with sector, labour and AET learners                                                                                                                                                                                                                              |
| Calculation type          | Once off annually                                                                                                                                                                                                                                                                                          |
| Reporting cycle           | Bi-annually                                                                                                                                                                                                                                                                                                |
| New Indicator             | No                                                                                                                                                                                                                                                                                                         |
| Desired performance       | Sourcing AET learners in partnership with LP Unit extend invitations to identify target audience. Promote the event and ensure to the MMS and successfully co-host a successful one day event Inter-national Literacy Day event annually on the first Saturday of September to AET celebrate achieve-ments |
| Indicator responsibility  | Executive Manager Corporate Services                                                                                                                                                                                                                                                                       |

| Indicator Title           | 4.2 Review: Number of updated/amended qualifications, Skills programmes, learning materials and learnerships as per sector needs.                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Review: Number of updated/amended qualifications, Skills programmes, learning materials and learnerships as per sector needs                                                                              |
| Purpose/importance        | Provide quality support to the sector for delivery quality learning programmes and alignment updated legislations, qualifications and SSP                                                                 |
| Source/collection of data | Access records on SSP, Mining Qualifications Frameworks, registered qualifications (including NLRD) and amended legislation; the DHET list of occupations in high demand                                  |
| Method of calculation     | Continuous alerts from the SAQA NLRD data loads team and legislation amendments. Continuous updated information through SSP, OFO Codes and MQF                                                            |
| Data limitations          | Inaccuracy of the records provided through the SSP and structure of the legislation. Insufficient subject matter experts in various areas. Approval of applications for qualification development at QCTO |
| Type of indicator         | Output Indicator                                                                                                                                                                                          |
| Calculation type          | Cumulative for the year                                                                                                                                                                                   |
| Reporting cycle           | Quarterly                                                                                                                                                                                                 |
| New Indicator             | No                                                                                                                                                                                                        |
| Desired performance       | Development of "Fit for Purpose" quality developed learning programmes and materials that meet the needs                                                                                                  |



| Indicator Title           | 3.14 Number of retrenched employees that enter training programme per annum.                                                                                                                                                      |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Unemployed learners and retrenched workers registered on portable skills and mining related programmes to attain certificates for employability and sustainability<br>To attain certificates for employability and sustainability |
| Purpose/importance        | To give unemployed learners and retrenched workers portable skills to access world of work and to promote sustainable livelihoods                                                                                                 |
| Source/collection of data | Registration form, certified ID copies/birth certificate for under aged, results and reports, DHET QMR data, LA, and MOA for SETA funded                                                                                          |
| Method of calculation     | Simple count: Each unemployed learner and retrenched workers is reported against supporting documents                                                                                                                             |
| Data limitations          | Incorrectly submitted information from service provider                                                                                                                                                                           |
| Type of indicator         | Output Indicator                                                                                                                                                                                                                  |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                           |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                         |
| New Indicator             | No                                                                                                                                                                                                                                |
| Desired performance       | Desired performance is meeting the target of 2 500                                                                                                                                                                                |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                                                                           |

| Indicator Title           | 4.1 Number of Accredited/Programme approved training providers quality assured per annum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | <ul style="list-style-type: none"> <li>• Accreditation: Organisations with core business within MMS, granted primary accreditation</li> <li>• Programme Approval: Organisations granted secondary accreditation</li> <li>• Monitoring/Verification: Existing providers with status about to lapse</li> <li>• Site/Scope extension: Providers request to extend scope or sites</li> <li>• Workplace Approval: Employers request for workplace approval to place learners for "On The Job" training or learning</li> <li>• To attain certificates for employability and sustainability</li> </ul> |
| Purpose/importance        | To ensure compliances and quality learning delivery within MMS through an accreditation training providers that meet standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Source/collection of data | Training providers' request, I-Share report, Internal Audits records and SAQA alerts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Method of calculation     | Conducted audits as per the audit schedule and alerts through MIS recorded periods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Data limitations          | Late cancellations (SMEs, Training Providers, Internal/External Imperatives)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Type of indicator         | Output indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Calculation type          | Cumulative for the year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reporting cycle           | Quarterly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| New Indicator             | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Desired performance       | Granting of accreditation/programme approval status for creditability and maintaining the quality of learning delivery within National Qualification Framework                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



| Indicator Title           | 4.3 Number of HDSA training providers accredited.                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short definition          | Support new applicant HDSA training providers to access accreditation                                                                                                              |
| Purpose/importance        | To ensure that the Mining and Minerals Sector has sufficient skilled and competent HDSA to conduct quality training<br>To support transformation for the Mining and Mineral Sector |
| Source/collection of data | Training Providers submitted application forms, Letter of Intent                                                                                                                   |
| Method of calculation     | Number of HDSA accredited                                                                                                                                                          |
| Data limitations          | Incorrect information and business access in the sector                                                                                                                            |
| Type of indicator         | Output Indicator                                                                                                                                                                   |
| Calculation type          | Cumulative for the                                                                                                                                                                 |
| year Reporting cycle      | Quarterly                                                                                                                                                                          |
| New Indicator             | No                                                                                                                                                                                 |
| Desired performance       | To increase the number for HDSA training providers within the MMS                                                                                                                  |
| Indicator responsibility  | Chief Operating Officer                                                                                                                                                            |