



NORTHERN CAPE PROVINCE

# Skills Development Needs in Northern Cape

A case study of MMS-related skills development needs in mining communities — examining the unique landscape of South Africa's largest province by area. Commissioned by the Mining Qualifications Authority.

EMPLOYMENT STATUS — PROVINCE-WIDE



5 DISTRICT MUNICIPALITIES

- ZF Mgcau
- Frances Baard
- Namakwa
- John Taolo Gaetsewe
- Pixley ka Seme

**R150B**

ANNUAL MINERAL SALES REVENUE (19.7% NATIONAL)

**506**

COMMUNITY MEMBERS SURVEYED ACROSS 5 DISTRICTS

**44,443**

PEOPLE EMPLOYED IN PROVINCIAL MINING SECTOR

**7**

STRATEGIC RECOMMENDATIONS PROPOSED

**36%**

HOLD MATRIC (LOW ATTAINMENT)

**10%**

POST-SCHOOL QUALIFICATIONS

**87%**

UNAWARE OF MINING TRAINING

**73%**

UNFAMILIAR WITH MQA

The Northern Cape is South Africa's **largest province by area** but one of the least densely populated. It hosts major iron ore, manganese, diamond and zinc operations, contributing **19.7% of national mineral sales (~R150 billion)**. The study surveyed **506 community members** across all 5 district municipalities through surveys, community engagements and key informant interviews with mining companies and training providers.

**36%**

HAVE MATRIC (LOW VS NATIONAL)

**39%**

UNEMPLOYED, LOOKING FOR WORK

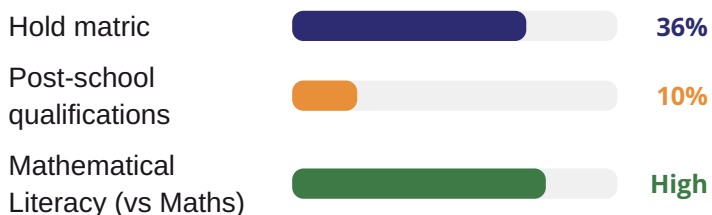
**49%**

INCOME FROM SOCIAL GRANTS

**60%**

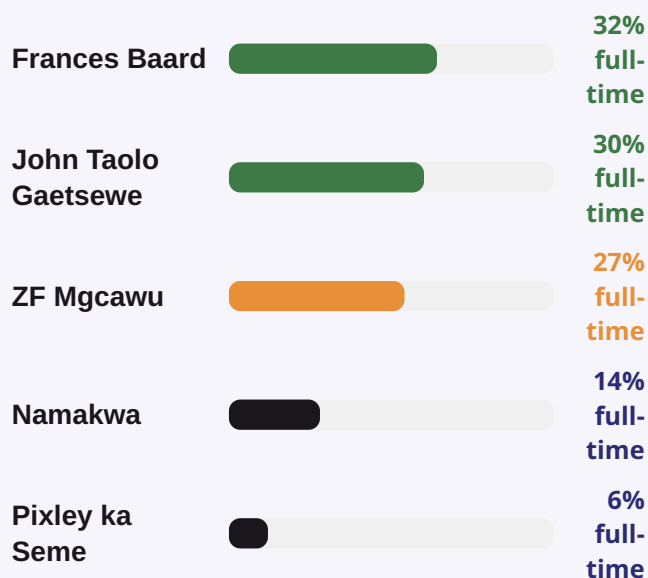
AWARE OF RENEWABLE ENERGY

### EDUCATION PROFILE · PROVINCE

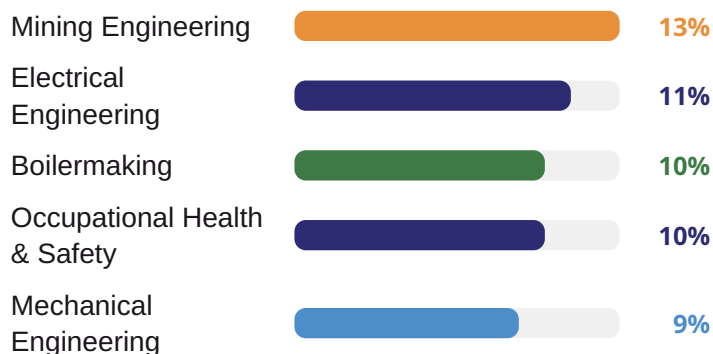


Gaps most acute in **Namakwa and Pixley ka Seme**. Subject choices skewed toward humanities, limiting engineering pathways.

### EMPLOYMENT BY DISTRICT



### SKILLS NEEDED TO ENTER MMS (SURVEY)



Mining Engineering consistently emerged as a high-priority skill in **all 5 districts**, underscoring its central importance to the provincial sector.

### WORKFORCE SKILLS PROFILE (2022)

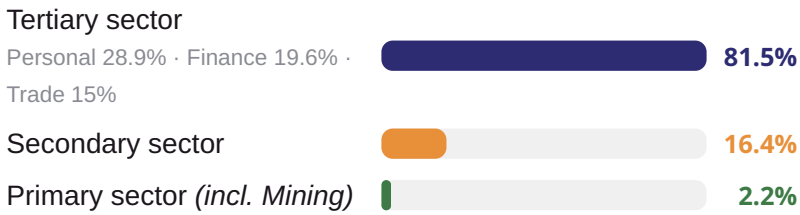


Only **7%** of persons aged 20+ hold post-school qualifications — the critical constraint on skilled workforce expansion.

# Mining Sector Profile & Skills Gaps

## PROVINCIAL ECONOMY — GVA CONTRIBUTION

### GVA BY SECTOR (2024 Q1)



## KEY MINERAL DEPOSITS IN THE PROVINCE

Iron Ore — Sishen, Kolomela, Khumani, Beeshoek

Manganese — Hotazel, Kalagadi, Kudumane, Tshipi

Diamonds — Finsch (Lime Acres), Orange River

Zinc/Lead — Black Mountain, Gamsberg (Aggeneys)

Semi-precious — Tiger's eye, amethyst, garnet

## HARD-TO-FILL VACANCIES · PRIMARY CAUSE



Iron ore employment rose from 16,651 (2016) to **23,762 (2023)**. Manganese production increased **72.7%** since 2016. NC ranks **3rd nationally** for mineral sales revenue.

## CRITICAL ROLES UNFILLED

Auto Electrician (Top-cited)

Diesel Mechanic

Section / Engineering Manager

Mining Manager

Shift Supervisor / Mine Overseer

Maintenance Planner

## MOST PROMINENT SKILLS GAPS — TOP-UP SKILLS ACROSS OCCUPATIONS

**Occupational Health & Safety**  
Most prominent

**Planning & Organising**  
Multiple roles

**Communication Skills**  
Cross-cutting

**Computer Literacy**  
Operations roles

**Project Management**  
Coal/Mining roles

## PEOPLE EMPLOYED IN MINING (2024 Q1)

# 44,443

MINING GVA CONTRIBUTION

# R150B

## CRITICAL TRAINING IMPLEMENTATION GAP

### 3

of 15  
PROGRAMMES  
DELIVERED

### 7

of 192  
INDIVIDUALS  
TRAINED

**Severe artisan shortage.** No local trade test centres in Northern Cape — learners travel to other provinces for certification, increasing costs and delays.

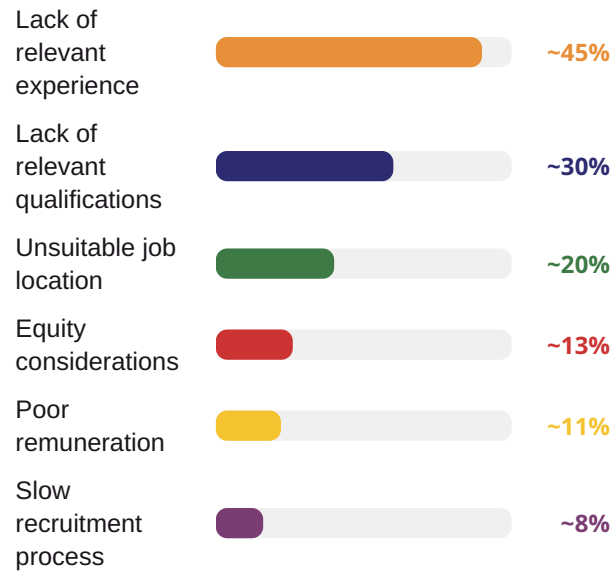


**Hard-to-fill vacancies** are occupations that an employer was unable to fill within 12 months or took longer than 12 months to find a suitably qualified and experienced candidate (WSP-ATR 2024 definition). Data drawn from submissions by mining companies operating in the Northern Cape province.

## OCCUPATIONS IDENTIFIED AS HARD-TO-FILL

Occupation	OFO Code	Primary Reasons
<b>Auto Electrician</b>	2021-671208	<ul style="list-style-type: none"> <li>Lack of qualifications</li> <li>Lack of experience</li> <li>Unsuitable location</li> <li>Equity considerations</li> <li>Poor remuneration</li> <li>Unsuitable hours</li> <li>Slow recruitment</li> <li>New/emerging role</li> </ul>
<b>Diesel Mechanic / Field Service Tech (Diesel)</b>	2021-653306	<ul style="list-style-type: none"> <li>Lack of experience</li> <li>Lack of qualifications</li> <li>Unsuitable location</li> <li>Equity considerations</li> <li>Poor remuneration</li> <li>New/emerging role</li> </ul>
<b>Section Engineer / Engineering Manager</b>	2021-132104	<ul style="list-style-type: none"> <li>Lack of experience</li> <li>Lack of qualifications</li> <li>Equity considerations</li> <li>Poor remuneration</li> <li>Slow recruitment</li> </ul>
<b>Mining Manager / General Manager Mining</b>	2021-132201	<ul style="list-style-type: none"> <li>Lack of experience</li> <li>Unsuitable location</li> <li>Slow recruitment</li> <li>Lack of qualifications</li> <li>Equity considerations</li> </ul>
<b>Shift Supervisor / Mine Overseer (Production)</b>	2021-312101	<ul style="list-style-type: none"> <li>Lack of experience</li> <li>Lack of qualifications</li> <li>Poor remuneration</li> <li>Equity considerations</li> <li>Unsuitable location</li> <li>Slow recruitment</li> </ul>
<b>Maintenance Planner</b>	2021-312202	<ul style="list-style-type: none"> <li>Poor remuneration</li> <li>Lack of qualifications</li> <li>Lack of experience</li> </ul>

## PRIMARY RECRUITMENT BARRIERS



The Northern Cape faces a severe **"experience gap"** — candidates cannot get jobs without experience, yet cannot gain experience without employment. Combined with the province's remote geography, this creates a double barrier to local skills absorption.

## KEY ARTISAN CONSTRAINTS (KEY INFORMANTS)

- ▶ No local trade test centres — learners must travel to other provinces for certification.
- ▶ Limited accredited training for diesel mechanics, plant fitters, welders and electricians.
- ▶ Skilled artisans migrate to larger mining hubs offering higher remuneration — ongoing talent drain.

## TRAINING PROGRAMMES DELIVERED (2024)





## TOP SKILLS NEEDED BY COMMUNITIES (SURVEY)



## MQA COMMUNITY AWARENESS

**38%**

Familiar with MQA

Familiar with MQA	38%
Somewhat familiar	9%
Not familiar	53%

ZF Mgcawu highest awareness (34%) · Pixley ka Seme lowest (3%) · Only 4% of households participated in MQA programmes

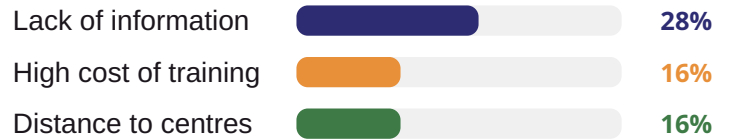
## BARRIERS TO ACCESSING TRAINING (SURVEY)

**51%**

SAY ACCESS IS "VERY DIFFICULT"

**87%**

UNAWARE OF ANY MMS TRAINING PROGRAMME



## EMERGING OPPORTUNITY SECTORS

### Agriculture & Agro-processing

Crop farming · Livestock · Poultry · Food processing

All 5 districts

### Renewable Energy (Solar/Wind)

Solar installation · Battery storage · Wind energy

De Aar / NC-wide

### Construction & Infrastructure

Roads · Mining infrastructure · Buildings

All districts

### Mining-Aligned SMMEs

Retail services · Supply chain · Equipment support

61% see SMME opportunities

## PRIORITY DEVELOPMENT FOCUS AREAS (SURVEY)

**37%**

Prepare Youth for Mining Careers

**23%**

Upskill Current Mining Workers

**21%**

Support Local Mining Businesses

**15%**

Economic Diversification Skills

**7 Evidence-Based Recommendations for Northern Cape.** Based on community surveys (506 respondents), key informant interviews with mining companies, training providers and engineering firms, and WSP-ATR data analysis.

1

### Increase MQA Visibility & Communication

Strengthen district-level outreach via multilingual campaigns, WhatsApp, SMS and community radio. Close the awareness gap — 73% are unfamiliar with MQA's role or programmes.

🕒 **Immediate — 2026**

3

### Strengthen Work-Integrated Learning (WIL)

Support expansion of WIL pathways, apprenticeships and short accredited courses providing practical exposure — directly addressing the 'experience gap' identified by communities and key informants.

🕒 **Short-term — 2026**

5

### Strengthen School-to-Work Skills Pipeline

Promote STEM readiness and career guidance. Partner with schools on maths/science bridging. Offer tailored bursaries for mining engineering and electrical engineering to address low STEM uptake.

🕒 **Short-term — 2026**

2

### Expand Accredited Artisan Training

Support training providers to meet accreditation requirements in diesel mechanics, plant fitting, welding and electrical trades. Establish local trade test centres to eliminate out-of-province travel.

🕒 **Medium-term — 2026/27**

4

### Align Training with Emerging Technologies

Prioritise training integrating digital literacy, computer-based competencies and technical skills for mining and renewable energy. Respond to automation and digitalisation reshaping occupational roles.

🕒 **Medium-term — 2026/27**

6

### Support Enterprise Development

Support mining-aligned SMMEs through enterprise-readiness training, financial management support and linkages to procurement opportunities in Social and Labour Plans.

🕒 **2026/27 Financial Year**

7

### Implement Targeted OHS Training

Support targeted OHS training in collaboration with mining companies and accredited providers — addressing the most prominent cross-cutting skills gap across all occupation levels in Northern Cape mining.

🕒 **Immediate — 2026**

## IMPLEMENTATION TIMELINE

2

**IMMEDIATE**  
Recs 1 & 7

2

**SHORT-TERM**  
Recs 3 & 5

3

**MEDIUM-TERM**  
Recs 2, 4 & 6