

MINING & QUARRYING SECTOR SKILLS PLAN



JUNE 2014



NAMIBIA TRAINING AUTHORITY

MESSAGE FROM CHIEF EXECUTIVE OFFICER

We are pleased to present you with the Sector Skills Plan (SSP) for the Mining and Quarrying Industry. The aim of this SSP is to guide and inform skills development initiatives in this industry from a skills planning perspective. Sector skills planning is a relatively new process for the Namibian Training Authority. We have therefore adopted a developmental approach to this process. We have aligned the SSP to *Vision 2030*, *NDP4* and the *National Human Resources Plan: 2010 - 2025* of Namibia. This SSP resonates with the national vision and policy goals of our government.

Over the last few months we have consulted widely with stakeholders. Many who attended our workshops and focus group sessions participated enthusiastically in the SSP deliberations. We are very encouraged by this, and would like to build strong stakeholder partnerships. The SSP is a living document that should be subject to continuous change and improvement. It should be owned by industry stakeholders.

We have asked the research team to produce a user-friendly plan that will be easily read, understood and applied. The intention is not to write a thesis or peer-reviewed academic journal, but rather to produce a document that will be used by all interested organisations and individuals. We have achieved this without compromising the integrity of the research. We want practitioners and managers in the workplace to read the document.

The primary target audience are employers, managers, trade unionists, public policy-makers and planners, researchers, career counsellors and education managers, as well as others who have an interest or stake in this industry.

We have made a strong start by putting a workable plan on the table for skills development in the mining and quarrying industry. We are committed to improving the skills of workers and new entrants to the labour market. Let's join hands and take skills development to new heights.

We hope you contribute to the further development of the Sector Skills Plan in future iterations.

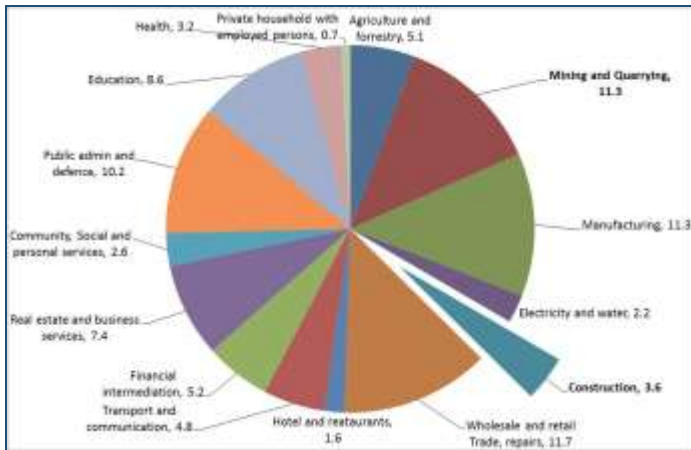
Best wishes!

Ms Ester Anna Nghipondoka
Chief Executive Officer
National Training Authority

CONTENTS

MESSAGE FROM CHIEF EXECUTIVE OFFICER.....	1
MINING AND QUARRING SECTOR SKILLS PLAN.....	4
1. INDUSTRY DEMARCATION.....	4
2. MAJOR INDUSTRY STAKEHOLDERS.....	5
3. GOVERNMENT POLICY.....	5
4. ECONOMIC AND LABOUR MARKET PROFILE.....	6
5. CHANGE DRIVERS.....	10
6. VALUE CHAIN ANALYSIS.....	12
7. RESEARCH DESIGN AND METHODOLOGY.....	13
8. SKILLS DEMAND.....	15
9. SKILLS SUPPLY.....	17
10. STRATEGIC PARTNERSHIPS BETWEEN EDUCATION AND INDUSTRY.....	28
11. STRATEGIC PLAN.....	33

NAMIBIA'S MINING & QUARRING SKILLS CHALLENGE



Mining & Quarrying GDP contribution > 11.3%
Mining & quarrying sector grew >11.2%
Turnover > N\$18.52 billion
% of foreign exchange earning 55%
Wages and salaries > N\$2.93 billion
Fixed investment > N\$3.33 billion
Exploration spending by operating mines > N\$434.9m
Exploration spending by exploration companies > N\$380.4m
Royalties paid > N\$957.7m
Corporate tax paid > N\$1.12 billion
Total taxes paid to GRN > N\$2.08 billion
De Beers Marine Namibia produced 1.1m carats in 2012
11 240 employees and 5 176 contractors
% of total labour force > 1.8%

SKILLS ISSUES

Positive Mining Outlook will drive labour growth, investments and demand	Weak graduate outputs growth increase skills shortages and constrains growth	Occupational Hygiene, Health, Safety and Environmental a key skills priority for industrv	Apprenticeship and internship scheme should be promoted	Small-scale mining should receive skills development support

MINING & QUARRYING WORKFORCE

	Workforce Size 11 241	1.8%			 Erongo 1736 Kunene 1736 Karas 2266 Khomas 1736 Osikoto 904
	Degreed 1 484	13%	85% 15%		
	Secondary + VET 8 554	76%	 National Institute of Mining & Technology		
	Primary School 1203	11%			

SKILLS SHORTAGES

Engineers	Project Managers	OHS Specialists	Artisans	Surveyors Draughtsman	
Create Partnerships with VTCs	Prioritise Apprenticeships	Promote Workforce Skills Planning	Access to Occupations in High Demand Training	Occupational Hygiene, Health, Safety and Environment	Support Small-Scale Miners

MINING AND QUARRING SECTOR SKILLS PLAN

1. INDUSTRY DEMARCATION

According to the *International Standard Industrial Classification of All Economic Activities (ISIC)*¹ the scope of industry coverage for mining and quarrying is as follows:

DIVISION	GROUP	CLASS	DESCRIPTION
Division 05			Mining of coal and lignite
	051	0510	Mining of hard coal
	052	0520	Mining of lignite
Division 07			Mining of metal ores
	071	0710	Mining of iron ores
	072		Mining of non-ferrous metal ores
		0721	Mining of uranium and thorium ores
		0729	Mining of other non-ferrous metal ores
Division 08			Other mining and quarrying
	081	0810	Quarrying of stone, sand and clay
	089		Mining and quarrying n.e.c.
		0891	Mining of chemical and fertilizer minerals
		0892	Extraction of peat
		0893	Extraction of salt
		0899	Other mining and quarrying n.e.c.
Division 09			Mining support service activities
	091	0910	Support activities for petroleum and natural gas extraction
	099	0990	Support activities for other mining and quarrying

- The mining sector has historically been the main driver of growth in the Namibia economy.
- Namibia is a world-class producer of diamonds, uranium oxide, high-grade zinc, gold and salt.
- Other minerals are extracted industrially such as lead, tungsten, tin, fluorspar, manganese, marble and copper.
- The industry is the largest foreign exchange earner in the economy and contributes the greatest amount to Gross Domestic Product (GDP).

¹ United Nations, 2008, ISIC, Revision 4

2. MAJOR INDUSTRY STAKEHOLDERS



3. GOVERNMENT POLICY

- The mining and quarrying sector must fit into this broad national economy and contribute to the achievement of national goals. The Government of Namibia recognises that the exploration and development of its mineral wealth could best be undertaken by the private sector. Government therefore focuses on creating an enabling environment for the promotion of private sector investment in the mining and quarrying sector. In the same vein, the Government expects the industry to accept the responsibility of planning for closure, community involvement and empowerment of formerly disadvantaged people.
- The Government remains committed to the promotion and development of the small-scale mining sector. It will investigate and take measures to support orderly operations of small-scale mining to allow legally supported operations in areas where large-scale mining is not warranted.
- The increase in marine diamond exploration and mining has raised Government interest in marine mining. Environmental concerns will be carefully considered in all issues.

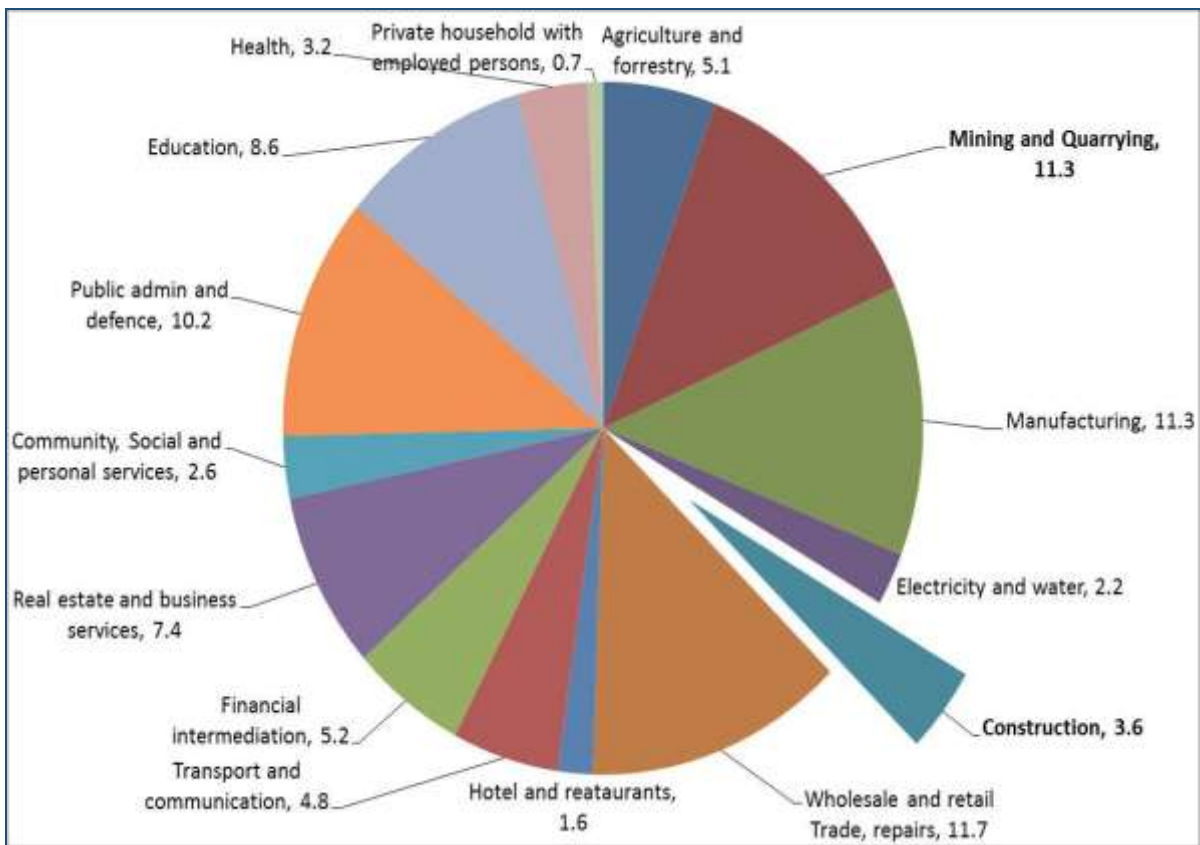
- Government acknowledges the potential for value addition to minerals that are produced in Namibia. Currently Namibia exports most minerals with little value addition, meaning that the full potential benefits to the nation are not realised. The Government will explore opportunities for the promotion of value addition, investigate constraints and promote measures to address them.

4. ECONOMIC AND LABOUR MARKET PROFILE

Highlights

Mining & Quarrying GDP contribution > 11.3%
Mining & quarrying sector grew >11.2%.
Turnover > N\$18.52 billion
% of foreign exchange earning 55%
Wages and salaries > N\$2.93 billion
Fixed investment > N\$3.33 billion
Exploration spending by operating mines > N\$434.9m
Exploration spending by exploration companies > N\$380.4m
Royalties paid > N\$957.7m
Corporate tax paid > N\$1.12 billion
Total taxes paid to GRN >N\$2.08 billion
De Beers Marine Namibia produced 1.1m carats in 2012
11 240 employees and 5 176 contractors
% of total labour force > 1.8%
Source: Namibia Statistics Agency, Labour Force Survey (2012); Chamber of Mines Annual Report 2013

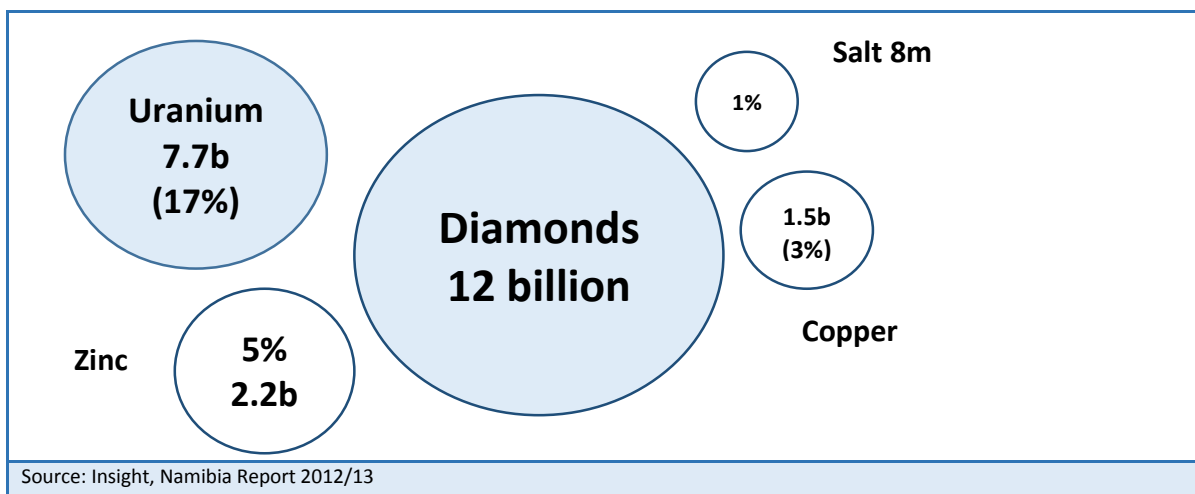
Sector Contribution to GDP (2012)



Source: National Human Resource Plan (2012)

- The sector’s contribution to GDP was more than 47% in 1978, but it shrunk to about 26% of GDP by the 1980s and 13% by 1991. In 2012 it stands at 11.3%². This reduction in GDP contribution is a result of the growth of other industries.

Total Mining and Quarrying Exports (2012)

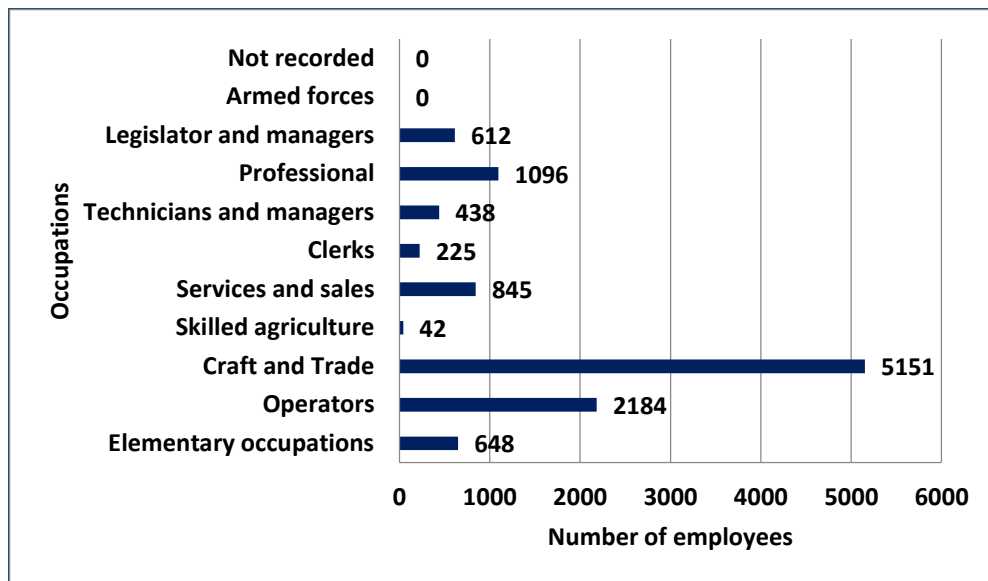


Source: Insight, Namibia Report 2012/13

² Statistics Office, 2012, Labour Force Survey (Namibia)

- Uranium and diamonds drive the mining and quarrying industry.

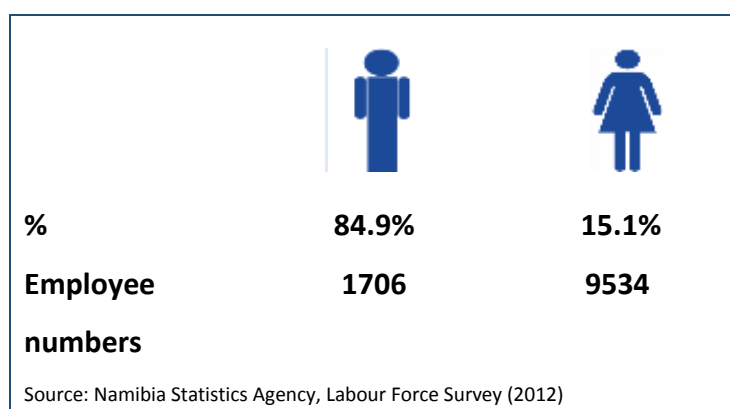
Occupational Breakdown



Source: Namibia Statistics Agency (2012), Labour Force Survey

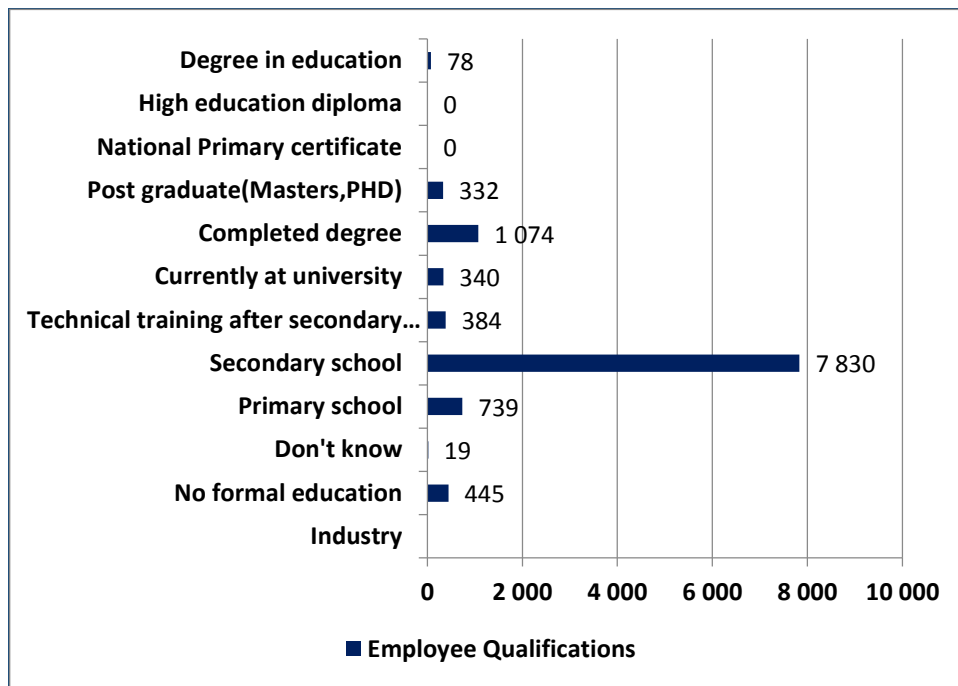
- There is a high number of workers in the craft and trades.
- Since Namibia does not have a national apprenticeship scheme, there is a need to determine how many workers in this occupational category have formal qualifications in their respective trades.
- Demand for artisan and professional engineering skills are likely to increase as the industry grows.
- There is an urgent need to develop a national apprenticeship scheme offering multiple pathways to trades and employment.

Gender Breakdown



- Room for improvement in addressing gender disparities.

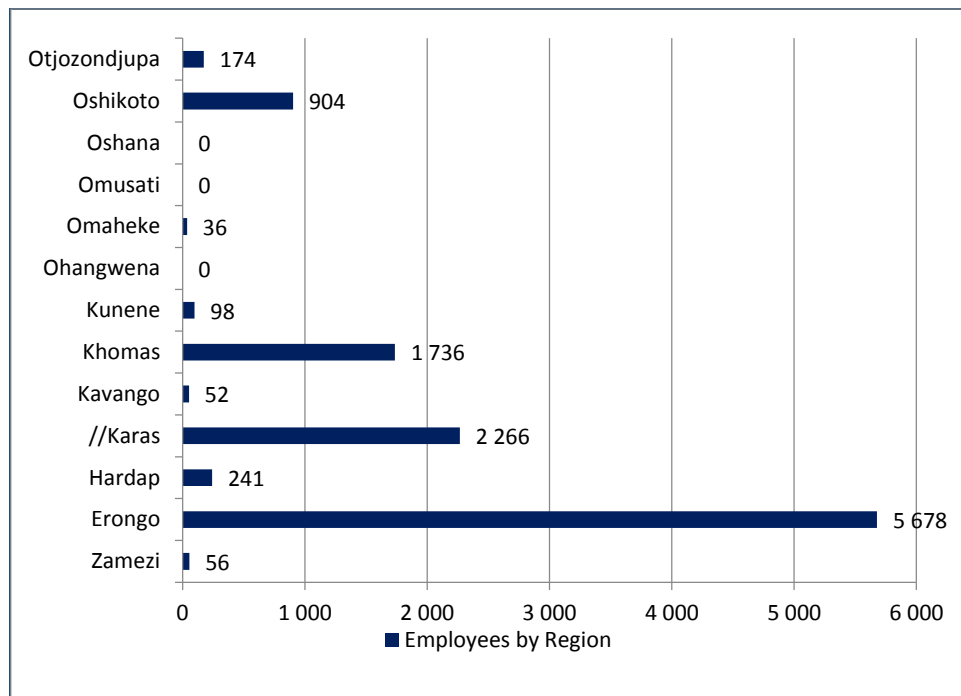
Employee Qualifications (2012)



Source: Namibia Statistics Agency (2012)

- Most employees have a secondary education.

Regional Employee Breakdown

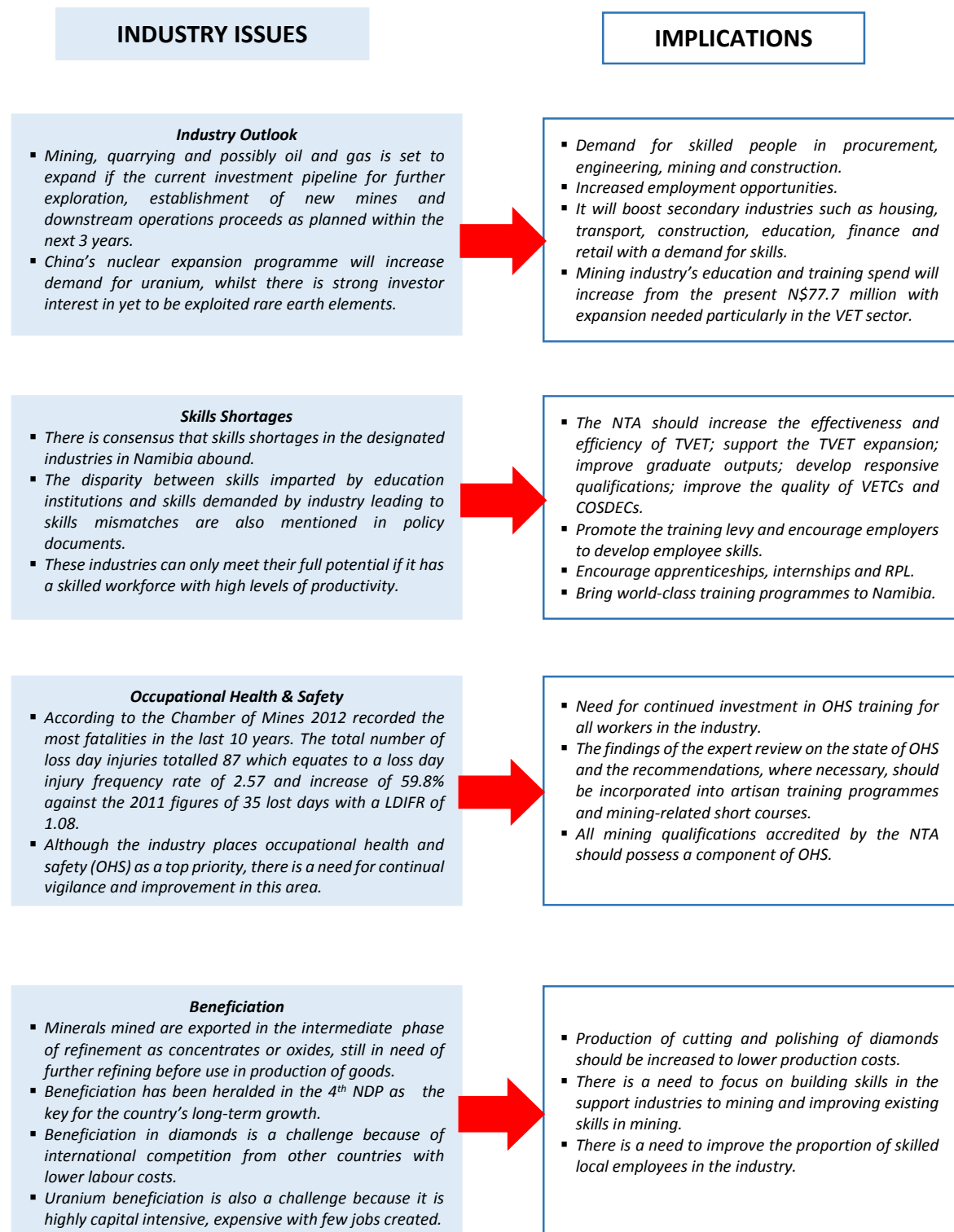


Source: Namibia Statistics Agency (2012)

- Erongo, Karas and Khomas are the main mining and quarrying regions.

5. CHANGE DRIVERS

Key change drivers in the industry.....



INDUSTRY ISSUES

IMPLICATIONS

Women in Mining

- The industry employs too few women. Hiring and retaining women at all levels increases a company's pool of skills, especially at a time when shortages exist.
- However, the sector lags other industries in employing skilled women, with only 1706 of roles filled by women compared to 9534 filled by men.
- Entrenched and outmoded attitudes towards women's roles and career prospects remain.
- Many of the companies we spoke to were aware of the need to redress the gender balance and are taking steps to do so. At the same time, they recognise that more commitment to change is needed.



- Many more women are needed in this industry.
- To attract women requires a concerted effort.
- For women, this means highlighting opportunities for them as early as high school, being accountable for diversity, providing flexibility in company culture and roles, and addressing unconscious biases.
- In parallel, there should be a focus on supporting women in the regions by training to provide long-term, stable regional workforces.

Graduate Outputs

- Namibia is not producing enough young people with relevant skills.
- Namibia produces too few engineers, engineering associates and engineering technologists each year. In addition, the industry is a leading provider of apprenticeships in Namibia and it invests more money per employee on training than any other industry.
- Despite these investments in the skill development of young Namibians are not graduating from relevant educational programmes.



- With productivity in mind, companies should focus both on recruiting skilled and experienced workers and developing new industry entrants.
- Some companies are now looking to address skill development needs with solutions in three areas: developing people from other industries; outsourcing large-scale skill development; and influencing universities to deliver skills aligned to industry needs.

Small-scale mining

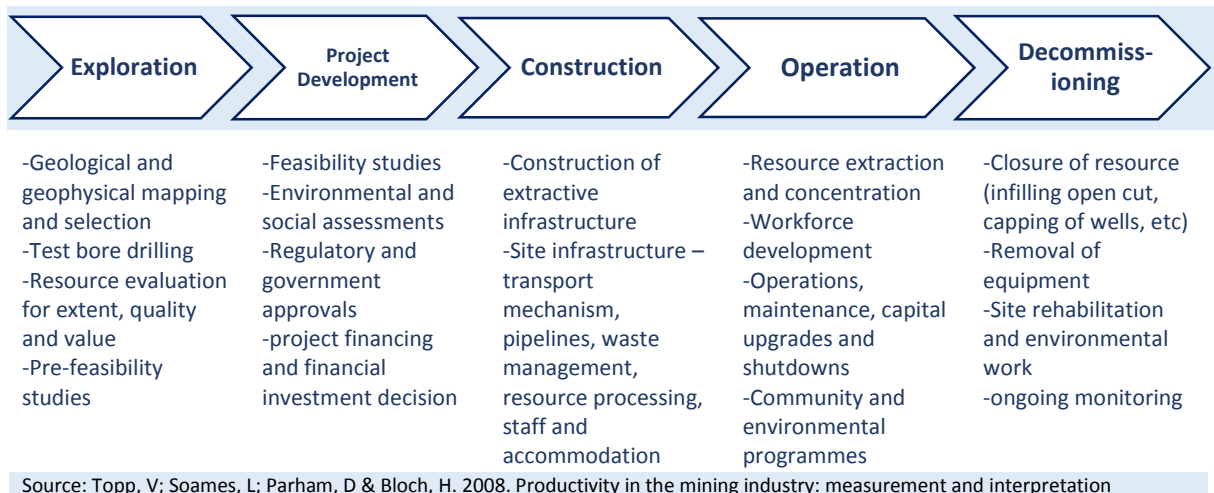
- Sitting beside technically sophisticated large-scale mining operations, small miners from impoverished communities scrape a living and fend for themselves to make a living.
- The typical profile of the average small miner appears to be youngish to middle age, rural background from the northern regions of the country. There is no record of how many small miners are at work, but the estimates are in the hundreds.
- They work in harsh conditions, inhospitable terrain, risk exposure to fatalities and with poor equipment and machinery. Claim robbery, non-enforcement of claim rights and trespassing are persistent problems.
- They are also exploited by gem buyers. Some small miners co-operatives and associations exist, but there is a need for supporting their efforts of protecting members and improving skills.



- Greater recognition is needed for the role of small mining as a creator of jobs.
- There is a need to improve the skills of small miners in equipment and machine handling, tunnelling, OHS and basic life skills.
- The capacity of co-operatives and associations in this sector should be strengthened with a particular focus of making skills development accessible to this group.
- Further research is required about the extent of small mining in the country.

6. VALUE CHAIN ANALYSIS

- The model below provides a generic project cycle and associated occupational requirements to understand occupational demand in mining and quarrying.³
- The model demonstrates the complex nature of resource extraction and the long lead times between investments in new capacity and outputs.
- The model serves to identify occupations at different points in the cycle that are needed to drive the industry.
- Our interest in examining the various stages is to assist in understanding workforce persistence skills shortages in certain occupations over the life-cycle of projects.



- Determining skills is difficult because projects vary according to the type and volume of mineral or energy commodity being extracted; the method of extraction used; the geographic location and proximity to infrastructure; environmental, social and other constraints; and the type of companies and its contracting and workforce strategies.
- The majority of employment opportunities occur in the construction and start-up phases of mine sites, which generally span the first 3 to 5 years of the life of the mine. Almost two-thirds of the positions created are in the start-up phase and one-third when the mine becomes operational.
- Ongoing operations include periodic shutdown of the site to facilitate maintenance and repair work on equipment. Mining companies conduct major and minor shutdowns (planned and unplanned) to undertake repairs, replacement and maintenance activities on production equipment. Due to disruptions of operation activities, shutdowns are time-critical.

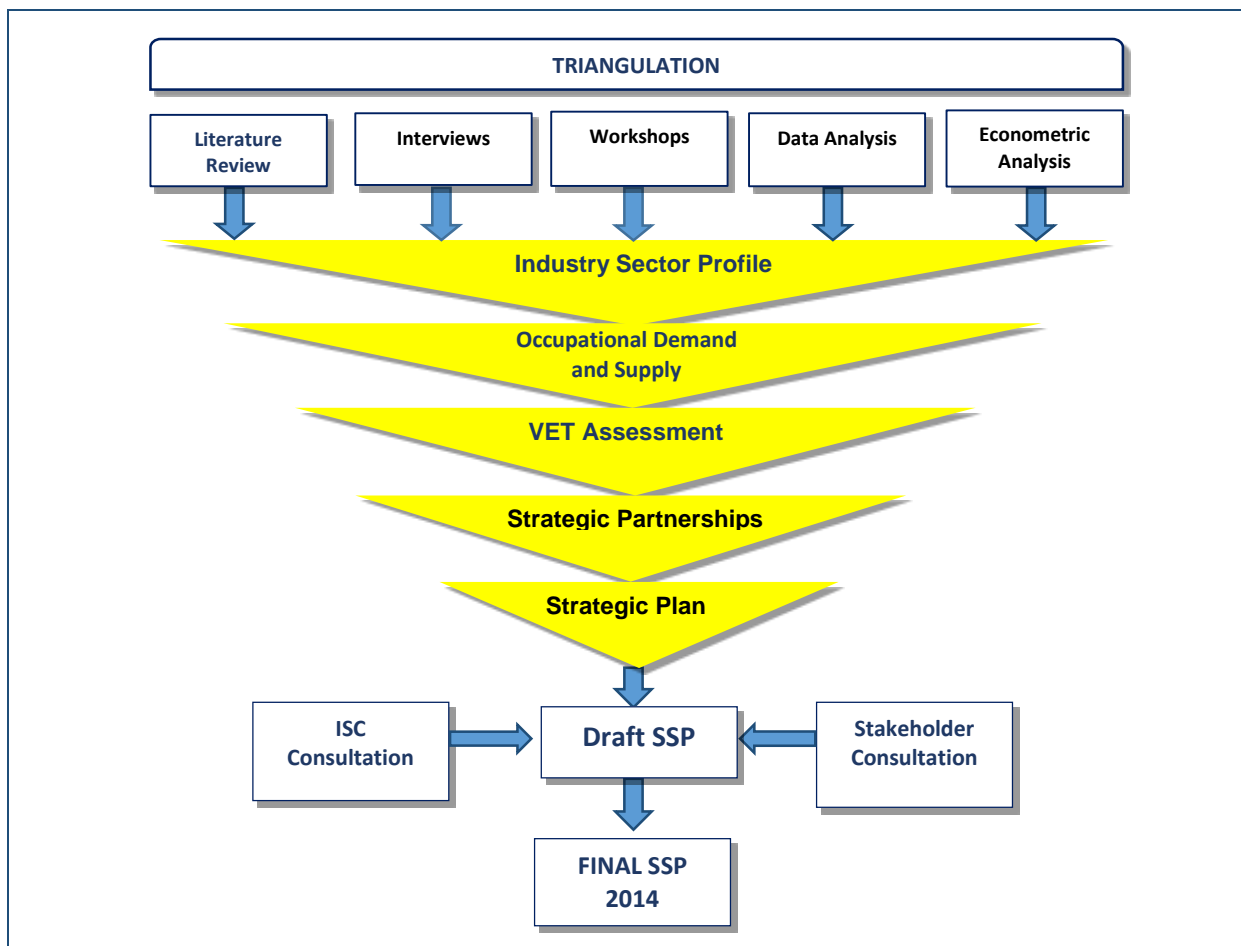
³ Topp, V; Soames, L; Parham, D & Bloch, H. 2008. Productivity in the mining industry: measurement and interpretation.

- Due to the temporary nature of the work, workers are often employed through contractors on a casual basis. The work is frequently of a fly-in and fly-out nature.

7. RESEARCH DESIGN AND METHODOLOGY

A well-considered research design, using appropriate methods, is essential to identify and anticipate occupational shortages in designated industries. The design is based on a mixed method approach, which brings together different research methods. This approach uses qualitative and quantitative research techniques. The chosen method is intended to ‘triangulate’ different information sources to identify occupational skills shortages. This ensures the credibility and legitimacy of the sector skills plan.

The research design is set out as follows:



Multiple data sources are used in order to identify occupational shortages and skills gaps in the labour market.

- Information is gathered on the occupational labour market, demand and supply of occupations, skills gaps, VET assessment and strategic partnerships to develop a strategic plan for the industry sector.

- Stakeholder consultations take place at all stages in the SSP development cycle.

Data Collection: Data was collected from the following sources:

Review of existing data and information sources
Literature search of studies in the sector
Analysis of industry market reports
Review of national strategies
Annual Reports of employer associations and companies
Interviews with key informants in the sector
Group discussions with stakeholders
Revision of the Sector Skills Plan
Presentation of SSP to Industry Skills Councils
Adoption of SSP by NTA

To add further value, qualitative research methods were used. Various focus group consultations with stakeholders were held in the development process.

The following research techniques were employed to make a determination on occupational demand:

Interviews: Interviews were conducted with key informants in the industry sector. These individuals were assumed to possess deep knowledge, understandings and insights of skills development in their respective sectors. The interviews were conducted using a semi-structured interview schedule. This kind of interview is partially structured with open-ended questions to elicit information that would not be obtained by closed questions. The interviewer is free to deviate from the questions so long as the issues are covered by the conclusion of the interview.

Workshops: Workshops were held with a larger group of industry sector experts to ascertain their views on skills developments in their respective industry sector.

Literature Review: A review of literature was conducted in the industry sector. Industry publications such as company annual reports, research studies, employer newsletters, economic reports, sector studies, and risk analysis reports were examined to establish evolving trends and skills needs in the industry sector.

Econometric Forecasts: The National Planning Commission undertakes econometric forecasting. The findings were used in this study as research evidence. By using multiple research methods, it is possible to draw comparisons, establish occupational trends, identify occupational shortages, and make decisions based on the weight of supporting evidence rather than subjective inclinations.

Data Analysis: Data is analysed from a comprehensive array of market-based measures (signals and indicators) in the economy for proposing interventions in education and training. Reliance on a composite of labour market signals, rather than on a single forecast, allows the researcher to form judgments on the basis of the weight of evidence.

The identification and interpretation of labour market signals require a basic understanding of the analytical processes which can be applied to occupational supply and demand. It also implies the availability of reliable labour market data for: guiding education and training decisions; managing training systems; and planning for education and training.

8. SKILLS DEMAND

This section provides information on skills demand or skills shortages for 2015 and 2020. The information is gathered from the econometric forecast conducted by the National Planning Commission and is given by occupational category. This forecast has been carried out in 2013 and 2014.

The findings of the econometric forecast is supplemented by interviews, meeting, workshops and a literature study with a view to provide a holistic picture of skills shortages in the industry sector.

The table below indicates shortages per occupation or occupational category over two periods.

Skills in Demand

Occupations	Shortages 2015	Shortages 2020
Professionals		
Mine Manager	15	25
Mining Geologist	40	80
Electrical Engineer	10	15
Production Manager	10	20
Process Engineer	20	35
Project Engineer	30	50
Engineering Manager	30	45
Petroleum Engineers	5	25
Chemical Engineers	10	20
Civil Engineers	20	30
Mechanical Engineer	15	20
Mine Engineer	30	40
Maintenance Engineer	15	20
Metallurgist	20	30
Surveyor	10	20
Environmental Scientists	5	10
Maintenance Planner	10	15
Chemists	10	20

Occupations	Shortages 2015	Shortages 2020
Human Resource Managers	10	20
Finance Managers	10	20
Supply Chain Managers	10	20
Technicians and Associate Professionals		
Safety Quality Technicians	59	78
Occupational Health Inspector and Advisors	10	14
Paramedics	40	80
Fire-fighters	40	80
Electrical Engineering Mechanics	75	91
Mechanical Engineering Mechanics	31	32
Instrumentation Mechanics	3	20
Mining Technicians	31	40
Civil Engineering technicians	23	37
Mines Inspectors	5	5
Engineering Technicians	35	41
Team Leaders & Supervisors	147	190
Mine Overseers	60	75
Draftsman	20	30
Craft and related trades workers		
Drillers	100	200
Diesel Mechanics	200	350
Miners	50	100
Shot firers	20	40
Electricians	70	100
Fitters and Turners	100	180
Boilermaker	60	100
Crane, Hoist or Lift Operator	60	120
Millwright	50	70
Rigger	30	50
Ropesman Opencast	30	60
Machine setters	18	25
Land Surveyors	20	40
Welder	80	120
Foreman	50	75
Diesel Mechanics	30	40
Heavy Plant Operators	50	70
Auto Electrician	57	59
Environmental, Health and Safety Officers	200	400
Plant and machine operators and assemblers		
Mineral Processing Machine	138	176
Operator / Drillers	63	80
Crane Operators /Drivers	23	20
Earthmoving Plant Operator	7	13

Occupations	Shortages 2015	Shortages 2020
Blasters	57	74
Sorters/graders/splitters/carvers	176	218
Metal workers	127	134
Truck Drivers	12	14

9. SKILLS SUPPLY

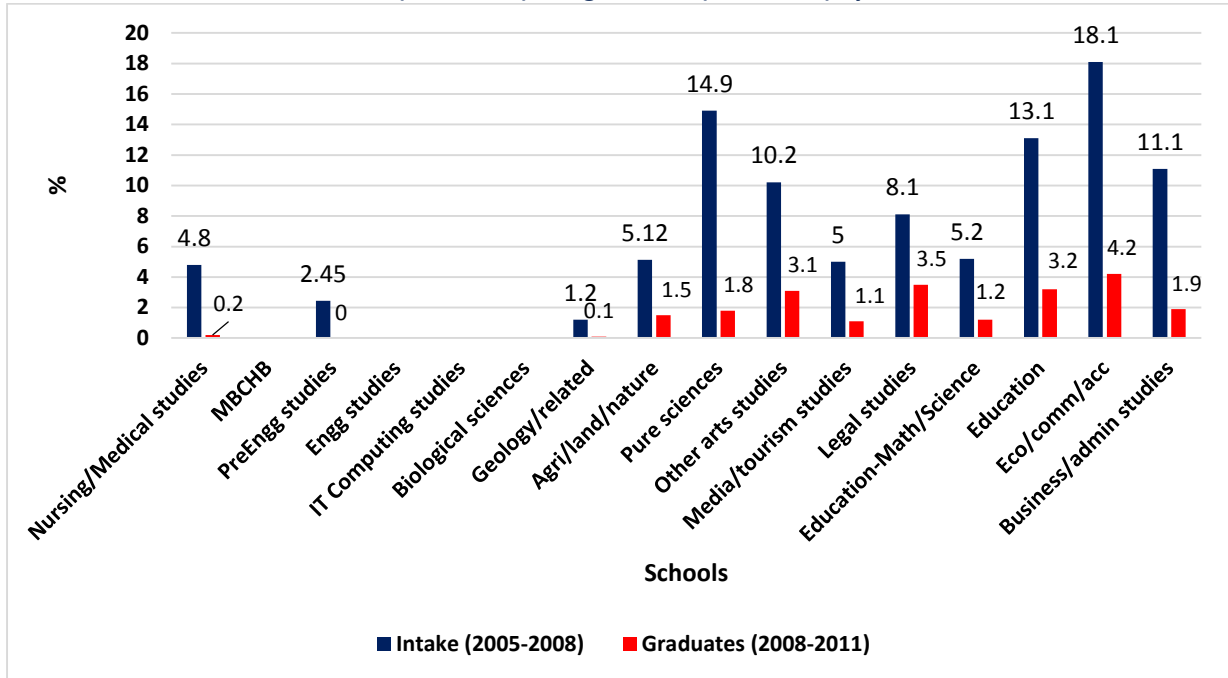
Higher Education

- This section focuses the supply of skills from Higher Education and Training (HET) Institutions and Vocational Training Centres (VTCs).
- The data of HET graduates from the engineering, information technology and science schools (faculties) is analysed because these graduates tend to be absorbed by the industry.
- There are two public HET institutions, the University of Namibia (UNAM) and the Polytechnic of Namibia (PoN).
- VET provision in Namibia is provided through public, parastatals and private vocational training centres (VTCs). In addition, there are public Community Skills Development Centres (COSDECs), KAYTEC and the Katatura Youth Enterprise Centre. Training is also offered through non-profit and private training providers on a smaller scale.

University of Namibia (UNAM)

The figure below provides intake (2005-2008) and graduates (2008-2011) for all schools. However, for the purpose of this industry, the discussion will focus on engineering, IT and science.

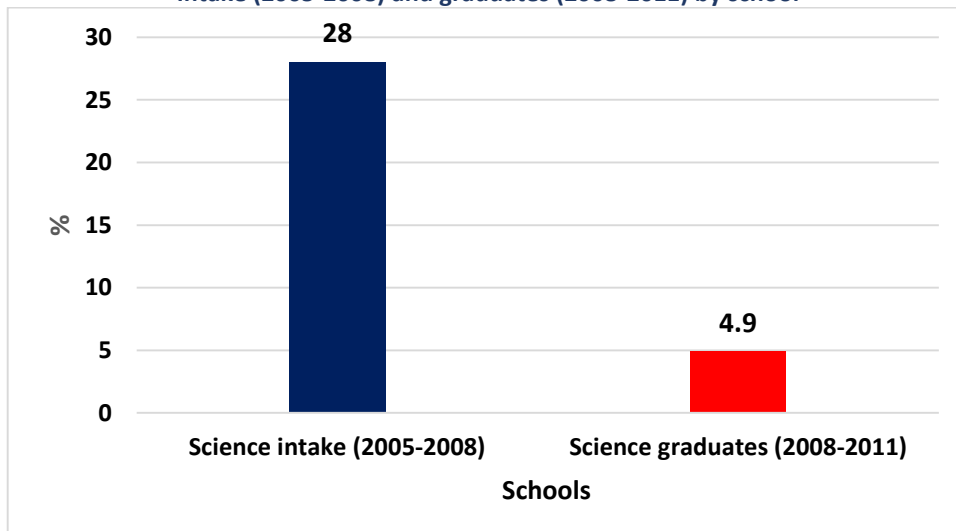
Intake (2005-2008) and graduates (2008-2011) by school



Insight Namibia Report 2012/2013

- There is minimal to no intake in the school of engineering and IT studies for the period (2005-2008).
- Whilst there is a 14.9% intake for science for the same period, the graduation rate of 1.8% is very low.

Intake (2005-2008) and graduates (2008-2011) by school

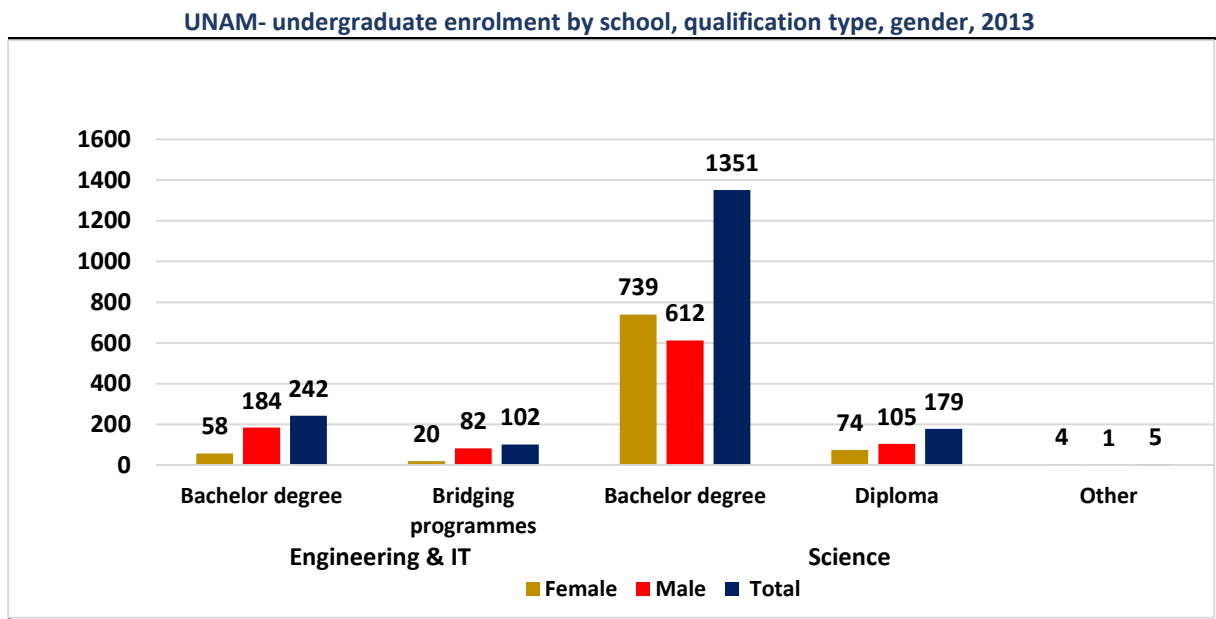


Insight Namibia Report 2012/2013

- The figure above provides further support to the low science graduate rates (4.9%) despite a 28% intake.

- The total undergraduate enrolment at UNAM for 2013 was 17 536. This comprised 10 897 females and 6639 males. A total of 1 879 students, comprising 10.7% of the total student enrolment, undertook programmes in engineering and information technology and science. While this is minimal, it does indicate slow but gradual progress in relation to the 2005-2008 intake.

The figure below provides a breakdown of undergraduate enrolment by school, qualification type and gender for 2013.

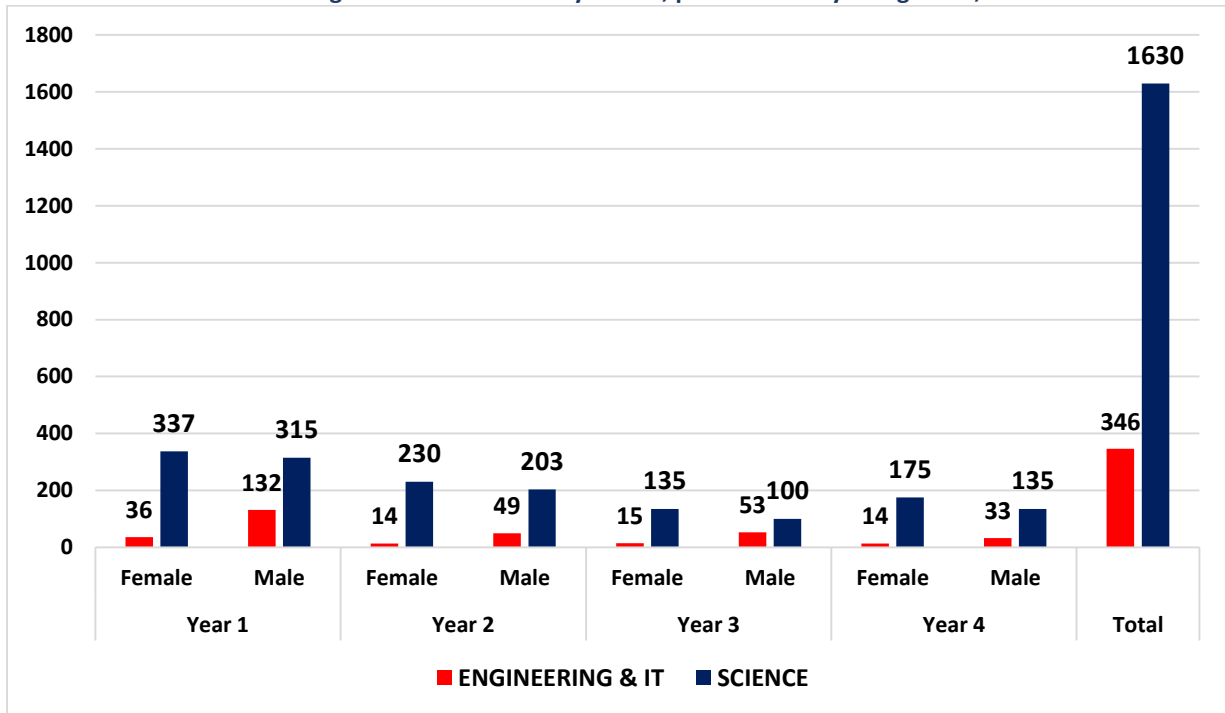


Source: UNAM Student Enrolment Report, 2013

- Engineering and IT which includes bachelor degrees and bridging programmes has 0.7% females and 4.0% males. Science which includes bachelor programmes, diplomas and other has 7.5% females and 10.8% males.
- Gender disparity is an issue. This needs to be addressed in order to move towards gender equity in the industry.
- There is a major difference in the engineering and IT enrolment (18.3%) in comparison to science (81.9%), hence confirming the shortage of skills in this industry sector. The higher science intake for this year in comparison to the 2005-2008 indicates progress in this school, a positive sign for the industry sector.

The figure below provides a breakdown of student enrolment as per school and gender from year one to year four.

UNAM- undergraduate enrolment by school, period of study and gender, 2013



Source: UNAM Student Enrolment Report, 2013

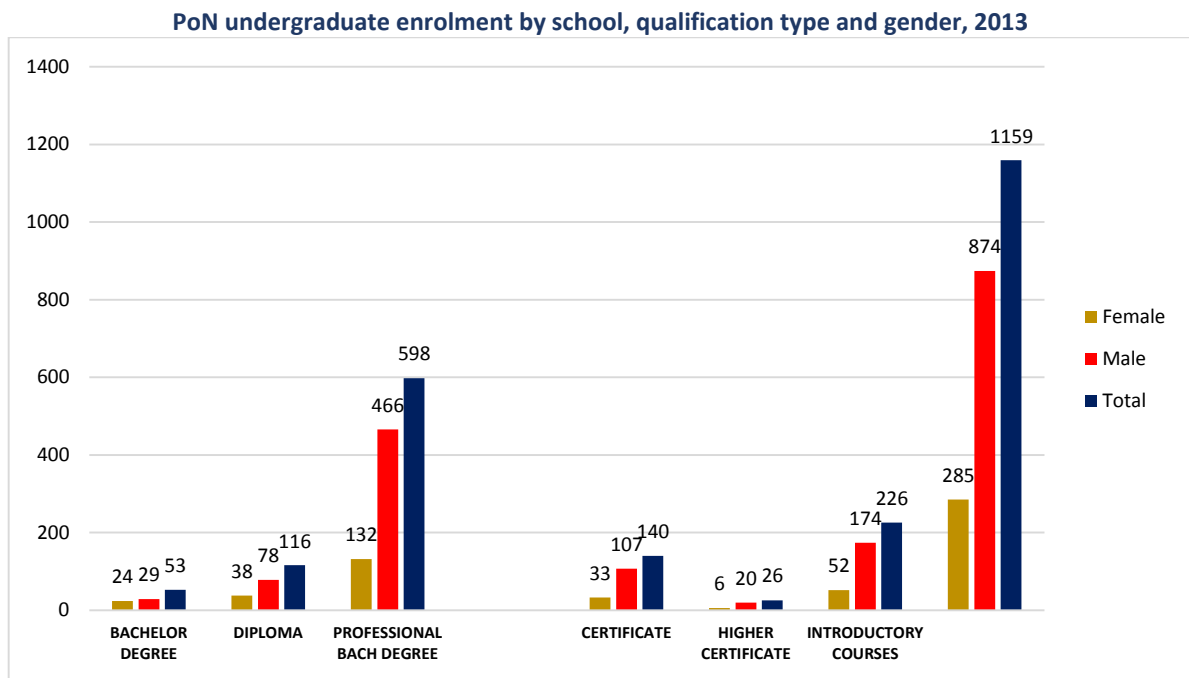
- There are 36 female students in engineering and IT intake in year 1 by year 4 it's down to 14, while male year 1 intake is 132 and by year four is 33.
- The dropout rate from year to year is very high, hence impacting negatively on the throughput rate and increasing the skills shortages in the industry.
- Female science intake in year 1 is 337 and by year 4, it's down to 175, while male year one intake is 315 and by year 4 is 135.
- While there is minimal gender disparity in science programmes, the decline in student numbers from year to year is very high, impacting negatively on the throughput rate and increasing the skills shortages in the industry.
- About 47 students reach the final year of engineering and IT and 310 in the sciences which further highlights the need to increase enrolments.

Polytechnic of Namibia (PoN)

- Polytechnic of Namibia (PoN) enrolled 13 130 students in 2013. A total of 1 159 students, comprising 8.8% of the total student enrolment undertook programmes in the school of engineering.

- The female enrolment is 285 comprising 4% of the total female enrolment, while the male enrolment of 874, compromises 14.9% of the total male enrolment.
- The low enrolments (8.8%) specifically for females indicate a reluctance to take engineering qualifications. This should be addressed as a priority.

The figure below provides a breakdown of undergraduate enrolment by school, qualification type and gender for 2013.

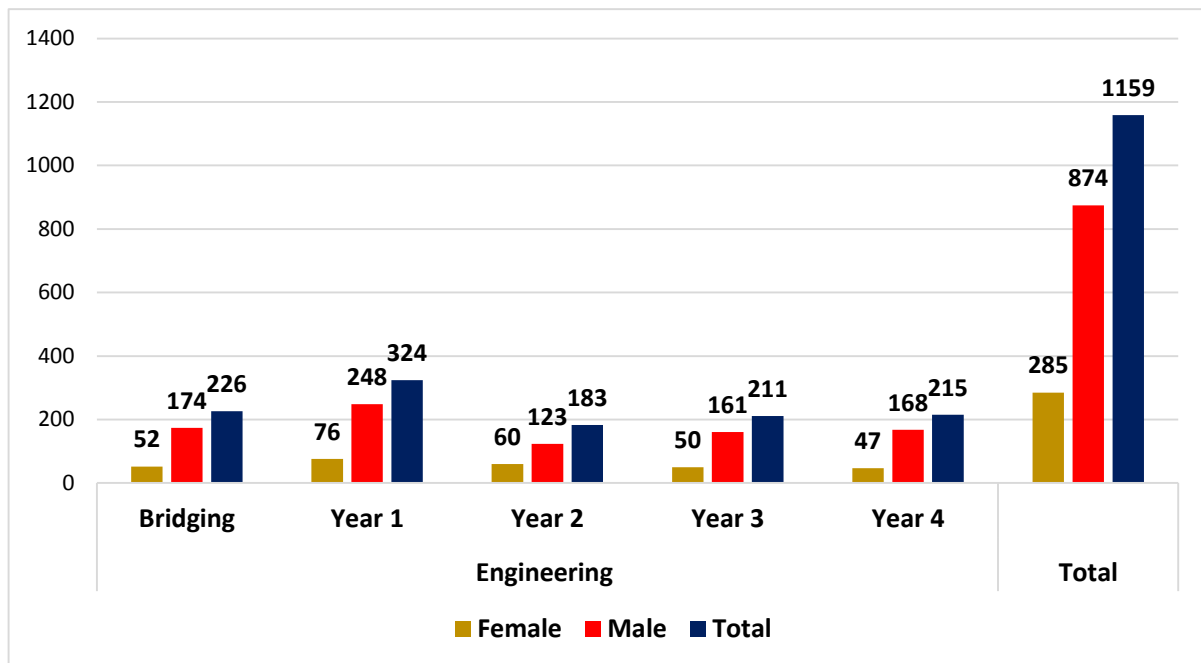


Source: Polytechnic of Namibia, 2013

- Apart from the bachelors degree, there is major gender disparity in male and female enrolment for all other qualifications.
- Female students should be encouraged to take on qualifications offered in the engineering and science fields.

The figure below provides a breakdown of undergraduate enrolment as per school, period of study and gender.

PON- undergraduate enrolment by school, period of study and gender, 2013



Source: Polytechnic of Namibia, 2013

- Female enrolment at the bridging year was 52 (18%) and at year 4 was 47 (16.5%), while male enrolment at the bridging year was 174 (20%) and at year four was 168 (19%).
- Although the enrolment figures in total are low, there is progress to year 4, anticipating a good throughput rate. The same applies for males.

The Findings

- The data from UNAM and PoN does not present an encouraging picture of enrolments and graduate rates of students in engineering and IT and science programmes required by the industry.
- Female enrolments are lower than males in both institutions.
- Due to a lower rate reaching the final year, there's a need to increase enrolments.
- According to David (2013)⁴ at least 26% of graduates who finish their tertiary education end up unemployed. This is according to a tracer study conducted by the National Council of Higher Education (NCHE) in 2011.
- Out of the 5 000 (4700) graduates from UNAM and PoN, 1 500 do not have jobs.
- 60% of PoN graduates have taken up jobs that are not linked to their studies.
- 27% say they have not found employment closely related to what they had studied.
- About 24% of graduates say they have had better prospects in their jobs, which are not related to what they had studied.
- 11.7% of graduates from UNAM, who have completed their respective courses, have not landed any jobs.

⁴ Aurelia David, The Namibian, 2 September 2013.

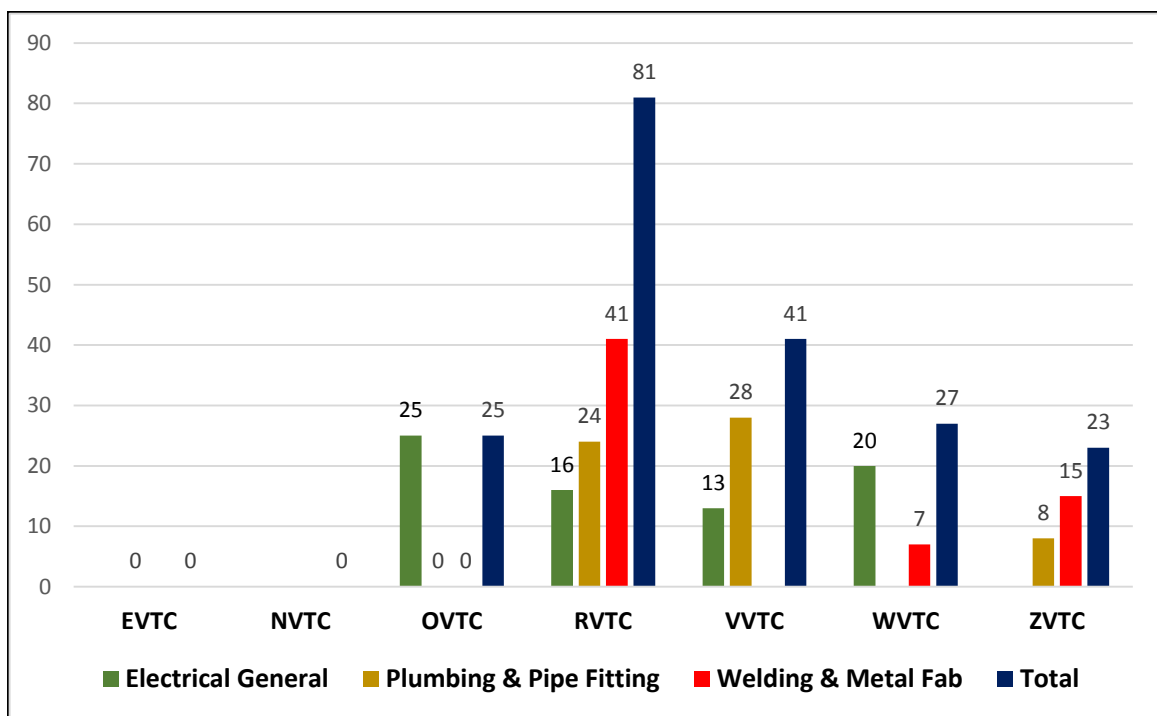
Vocational Education and Training (VET)

- The VET system is implemented with the intention of addressing skills shortages in the country, particularly technical skills at artisan level.
- Vocational Training Centres (VTCs) in Namibia consist of both state and privately managed institutions.
- The NTA currently oversees the VTCs. Until a few years ago, vocational training was not yet in the focus of the Ministry of Education and substantially underfunded. Even though this has changed recently, most vocational training is still carried out informally in the enterprises without any formal diploma issued for the learner or quality standards being set.

Vocational Training Centres (VTCs)

- Graduates of public and private VET institutions generally transition directly to the labour market.
- In addition, Community Skills Development Centres (COSDECs) graduates also seek employment. However, COSDECs offer mainly unaccredited skills programmes and therefore add little value to the mining and quarrying industry sector.
- Enrolments at public VET Colleges for trades in the mining and quarrying industry are illustrated for 2013 from data supplied by the NTA below:

Trainees per trade by level 3 at public VTCs, 2013



Source: NTA, 2013

The figure above reveals the following:

- the enrolments at the VTCs is very low, with two colleges not having any trainees in the trades mentioned;
- the very low trainee enrolments at level 3 is an indication that the graduate throughput rates is also going to be low, hence the shortage of qualified VET graduates entering the labour market;
- this situation further exacerbates the present skills shortage in almost all trades related to mining and quarrying;
- total headcount enrolments is low relative to the outputs of Grade 9 (in the region of 46 389);
- the situation gets worse when enrolments for grade 11 and grade 12 comprising 34 255 and 19 082 are considered;
- demand for VET far outstrips supply. Only about 3% of those who complete grade 10 can gain admission to VTCs. The participation of marginalised and designated groups as well as employed rural and urban youth should be increased⁵ and
- there is insufficient physical capacity for VTC institutions to accommodate students exiting from the general schooling system.

Private VET Providers

- There are a number of small private training providers offering mainly unaccredited skills programmes. The private VET College sector is about 10% of the size of the public VET College sector.
- The situation is also dire at Private VET Providers. Enrolment figures for 2013 are given below:

Private VET Enrolments, 2013

Name of the VTC	Male	Female	Total
Namibia Construction Skills Academy	436	91	527
NATH	47	17	64
Danida Training College	2	13	15
Transnamib	39	0	39
Centre's name Industrial Craft Training Institute	13	0	13
ILSA independent college	90	87	177
Total	627	208	835

Source: NTA Database (2013)

- The private sector's role in VET is limited and considerable effort should be made to stimulate involvement.
- Such an initiative should be weighed against the institutional capacity of the NTA to improve the quantity and quality of VET provision.
- It enrolled roughly 835 students with a male to female enrolment ratio of 1:3.

⁵ Government of Republic of Namibia. ETSIP Report. 2007. P.35.

- The private VET College sector is highly undeveloped and cannot support the transition to a knowledge-based economy unless there is a move to grow this sector and increase its absorption capacity.
- Graduate figures for private colleges are not available.

KAYEC Tracer Study (VET)

- A tracer study of 606 graduates was conducted by a VET institution, KAYEC Northern, for the period 2010 and 2012. The purpose of the tracer was to track graduate destinations⁶.
- KAYEC students tend to reside in regions where unemployment is higher than the national averages.
- The tracer study found that 48% of graduates it tracked have gone on to a full vocational training course with a vocational training centre (including NIMT). The destinations of graduates are as follows:

Training being followed by KAYEC graduates

VTC	NAMCOL	College	University	COSDEC	School
48%	17%	15%	12%	8%	2%

Source: KAYEC Tracer Study, October 2013

- While 48% are furthering their vocational training, nearly one fifth (17%) are seeking to improve their school grades through study with the Namibia College of Open Learning (NAMCOL). Notably, some have gone on to university (12%) or college (15%) study. Clearly KAYEC has proved a stepping stone in helping their graduates to extend their academic or vocational qualifications.
- For the 36% who have gone into work, just over half (54%) have found paid employment and 46% have gone into self-employment. While the 54% in paid employment is marginally higher than the national average of those in paid employment, the 46% in self-employment is considerably higher than the 14% who nationally are in self-employment.

NCHE Tracer Study (HET)

- The National Council for Higher Education (NCHE) commissioned a tracer study of graduates from the University of Namibia and the Polytechnic of Namibia who completed their studies in the years 1999 - 2008. The main purpose was to gain information on the current employment and economic status of the graduates, and their assessment of the relevance and quality of their education within their work context. The views of employers of graduates were obtained.⁷

⁶ KAYEC Trust, 2013, Tracer Study

⁷ NCHE, 2011, Tracer Study

- In total 26% of graduates from UNAM and PoN responded. Forty-three employers were interviewed in both public and private sectors.
- Some of the major findings of the tracer study graduates include:
 - About 50% of graduates obtained employment by applying for a vacant position.
 - 4 out of 5 began the search for employment before graduation. However, nearly 4 out of 5 only obtained work in their second year after completing their studies.
 - Most graduates contacted up to 3 employers before their first employment.
 - However, 23% of UNAM graduates, compared to 15% of PoN graduates contacted only one employer before finding employment.
 - The field of study and area of specialisation were felt to be the most important factors in obtaining employment.
 - More than 60% of graduates received on-the-job training.
 - Nearly 60% of graduates had not changed their employer since graduation.
 - 78% of UNAM graduates, 70% of PoN graduates, and 92% of those who hold qualifications from both institutions, work for a public employer (including local authorities.)
 - Only 1% of graduates are self-employed.
 - 11.7% of UNAM graduates and 14.4% of PoN graduates are unemployed and seeking employment. This is cause for concern, not least considering the enormous public and private investment in a graduate.
 - There is a tendency for the monthly earnings of UNAM graduates to be slightly higher than those of PoN graduates. This is may be because UNAM graduates on average have higher qualifications than those from PoN.
 - Most graduates considered the course content of their major subjects to be the most useful element of their study programme for their current work.
 - Most graduates feel that they have been able to realise the career that they expected at the time of graduation, that they are using the skills acquired during their studies, and that their position and status is appropriate for their level of education.
 - However, some 60% of PoN graduates have taken up work not linked to their studies; 27% mentioned that they could not find a job closely linked to their studies, while 24% felt that they had better career prospects in their current job. To some extent this speaks of the flexibility of PoN graduates.
- Some of the major findings from employers include:
 - Employers do see benefits from the employment of graduates.
 - However, some employers feel that graduates are not adequately prepared for work. They are seen to lack experience of the workplace.
 - Most employers are apparently not satisfied with the level of written English of graduates. In part this may relate to the level of English with which students enter higher education.

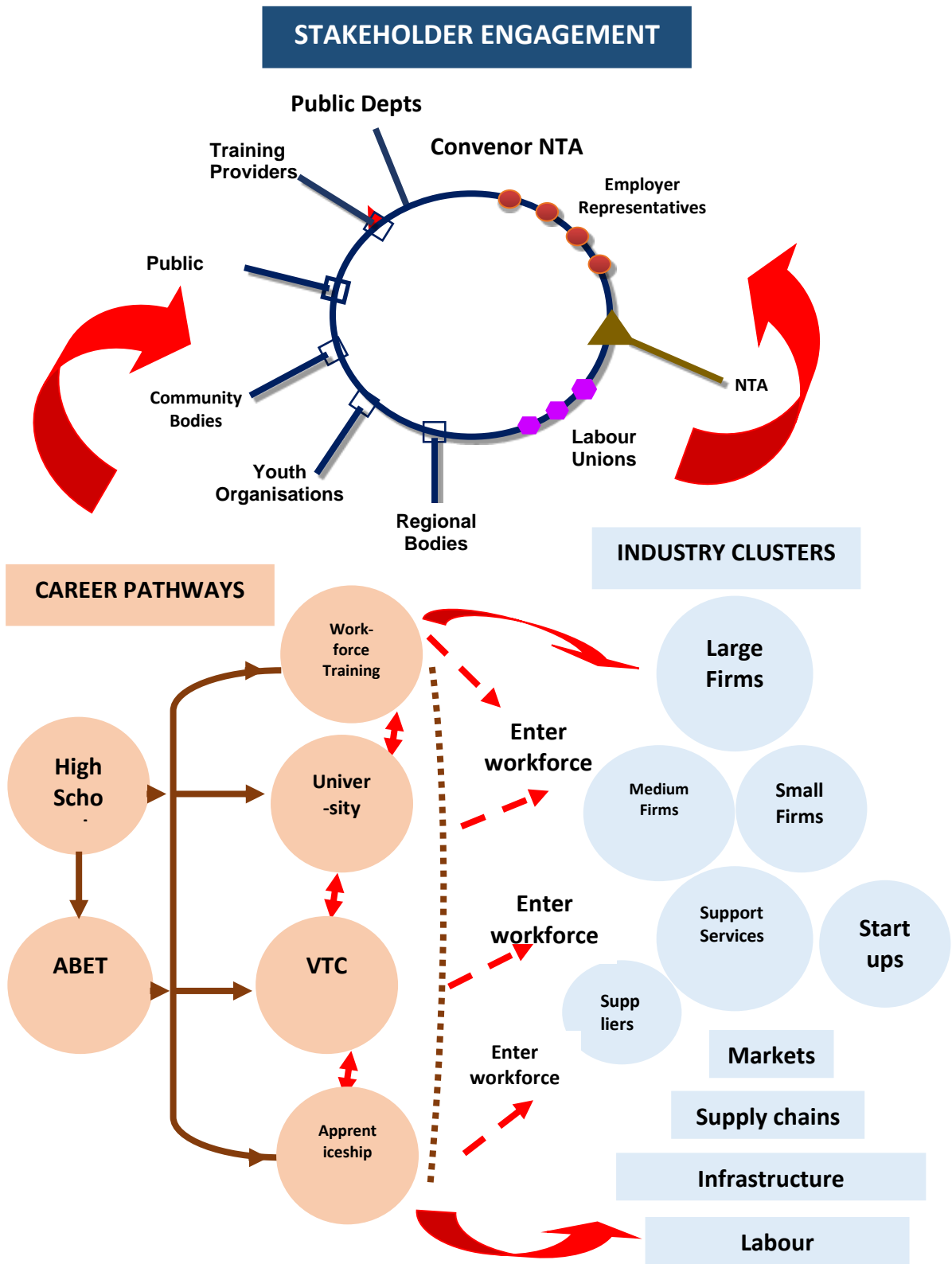
- According to employers, most graduates are interested in further studies, a tendency that they are willing to support financially and in other ways.
 - It seems that a significant proportion of employers do not feel that they have sufficient in-depth contact with institutions of higher learning, although some satisfactory relationships do exist.
 - It appears that higher education institutions are doing little research in collaboration with employers.
- Finally, it must be noted that this was the first attempt to conduct a tracer study of graduates in Namibia. It has been shown that such tracer studies are feasible and valuable for the improvement of higher education.

The Findings

- The VET Sector in Namibia (public and private) is not adequate to meet current and future enrolment needs because it is too small.
- With the exception of NIMT, there are quality concerns at VTCs and COSDECs.
- Programmes in the VET sector should resonate with the demand needs of the labour market.
- Since the bulk of the Namibia workforce will need to be trained at VTCs, there is a need for considerable capital expansion.
- An insufficient number of graduates are exiting VTCs.
- The research on tracking should be expanded to all VTCs to get an idea of the relevance of programmes and the confidence of employers.
- There are concerns with the workshop equipment and the quality of trainers expressed in workshops and interviews.

A NIMT model should be considered for other industries which essentially require an adoption of a VTC.

10. STRATEGIC PARTNERSHIPS BETWEEN EDUCATION AND INDUSTRY



INDUSTRY PRIORITIES	ACTIONS
Stakeholder Engagement	
<ul style="list-style-type: none"> ▪ Stakeholder partnership should be formed by the industry to address common skills needs and generate co-ordinated solutions that benefit all stakeholders. ▪ Stakeholders working together create career pathways based on industry needs for workers. 	<ul style="list-style-type: none"> ▪ Stakeholders work together to identify education and training problems and propose solutions through qualifications and programme development. ▪ Stakeholders devise career pathways. ▪ Better utilising of skills and improving the quality of jobs. ▪ Gearing skills development to the specific needs of the industry
Industry Cluster	
<ul style="list-style-type: none"> ▪ Firms in an industry cluster benefit from synergies of association of related to shared infrastructure, supply chains, labour, markets and innovation. ▪ Industry cluster increases bargaining power. 	<ul style="list-style-type: none"> ▪ Pooling of resources for education and training in the industry cluster. ▪ Developing industry standards or benchmarks. ▪ Fostering and adapting new areas of growth.
Career Pathways	
<ul style="list-style-type: none"> ▪ Inputs from industry clusters inform stakeholder discussions. ▪ Effective career pathways requires co-ordination across education and training programmes by the NTA in order to offer a clear sequence of industry coursework and credentials to job seekers. ▪ Workers graduate with industry credentials that enable them to get work. ▪ Workers can progress vertically and laterally in their careers. 	<ul style="list-style-type: none"> ▪ Developing sector skills plans to improve the performance of the industry. ▪ Creating a skilled and adaptable workforce. ▪ Employment progression and career definition.

CASE STUDY: NAMIBIAN INSTITUTE OF MINING AND TECHNOLOGY

In a country with a beleaguered vocational education and training sector, Namibia has an institution that is a case study of international best practice of how business, government and local communities can forge smart working partnerships to grow an industry, build institutional capacity, offer work-relevant programmes, develop talent, address unemployment and contribute to the public revenue base.

NATIONAL INSTITUTE FOR MINING AND TECHNOLOGY (NIMT)

As an independence gift to Namibia, Rio Tinto International announced on the day of our independence that they will establish a mining school for Namibians – NIMT- to grow mining industry from strength to strength.....later De Beers donated N\$2.1 million to open Tsumeb Campus

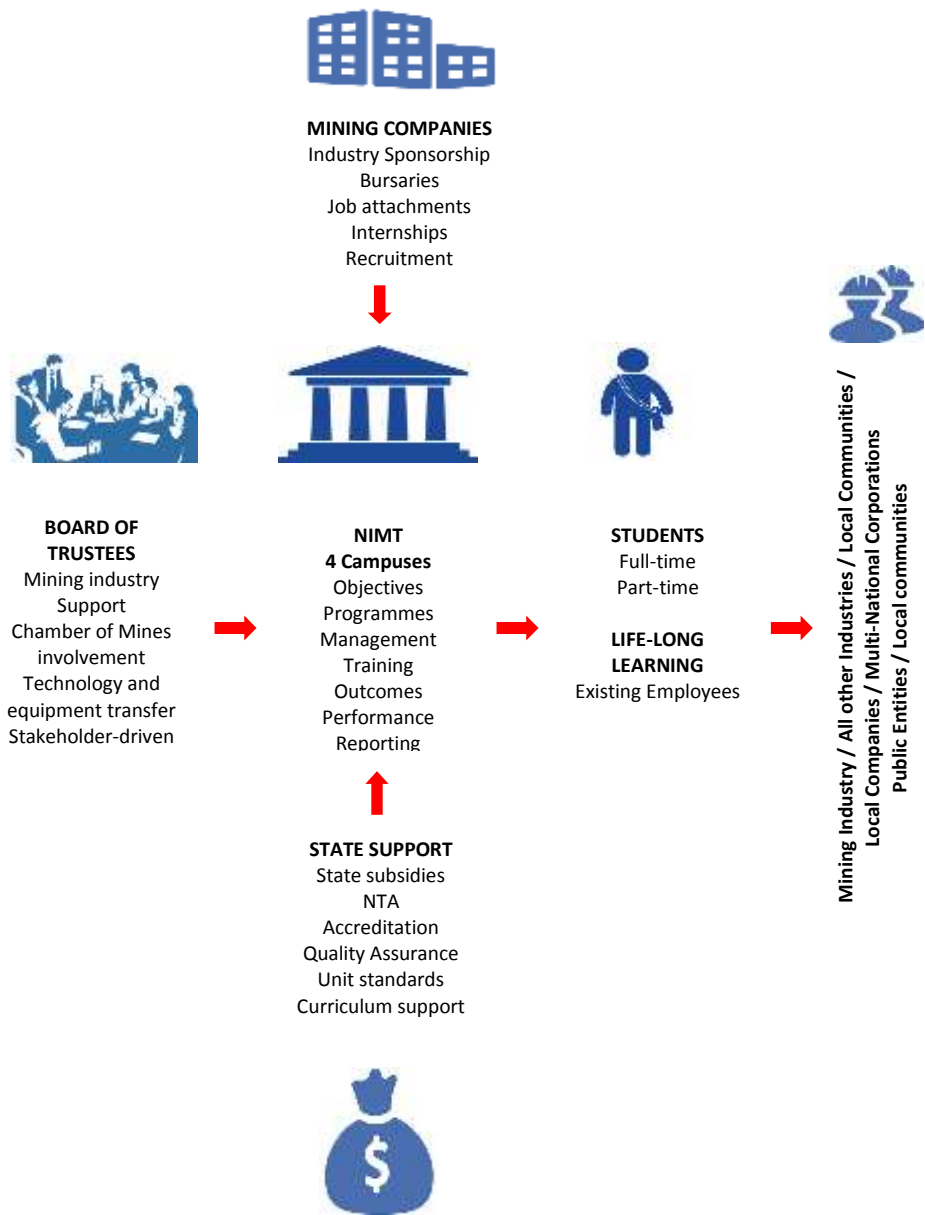
GOALS

- Prepare our trainees and workforce for the global challenges of the 21st century.
- Promote and uplift the social, cultural and personal development of our people.
- Understand, love and appreciate Namibia in the context of the continent and the world.
- Promote understanding of and respect for our country's languages and cultural diversities.
- Improve the ongoing quality of education and training.
- Improve learner performance and achievement.
- Assist our Government in reaching the goals of Vision 2030 successfully.

ABOUT NIMT

- NIMT established in 1991 – 4 campuses Arandis (2), Tsumeb and Keetmanshoop.
- Autonomous entity a Board of Trustees, with representatives from the Namibian Government and the Namibian mining industry.
- Specialises in mining, manufacturing and engineering.
- NIMT produces between 300 and 500 graduates a year who are employed by mining and other industries.
- Strong mining industry support by way of funding and sponsorship of machinery.
- Excellent training provided and the resulting outstanding skills distinguish NIMT graduates, ensuring that a job is guaranteed for everybody who attends this facility.
- Copper producer Namibia Custom Smelters is also a big sponsor of NIMT.
- Today NIMT provides quality training for all industries, including fishing, manufacturing, agriculture, oil exploration and the automotive industry.
- With a pass rate of 78% and a completion rate of 95%, is playing a major role in skills development.
- Regular discussions with industry as well as with the Chamber of Mines of Namibia, of which the executive director of the NIMT is an honorary member.

HOW DOES THE PARTNERSHIP WITH NIMT WORK?



WHAT MAKES NIMT SUCCESSFUL?

Need for other industries to adopt a VTCs along the NIMT Model an VTCs to invest in industry partnerships

Strong industry leadership at Board Level and participation of Chamber of Mines

Mining companies support NIMT - machinery , equipment and donor support

Strong internal management and controls

Industry participation in curricula; job attachments, absorption into companies and bursaries.

Work relevant programmes create a positive image of the institution

Effective teaching, learning and assessment and attempt to keep up with technology

Supportive state agencies - NTA, NQF and Ministry of Education

11. STRATEGIC PLAN

The priorities and recommendations for mining and quarrying are based on the preceding sections and aligned national strategies and plans.

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
STRATEGIC PRIORITY 1: BUILDING EFFECTIVE STAKEHOLDER PARTNERSHIPS FOR SKILLS DEVELOPMENT IN THE INDUSTRY SECTOR			
<i>RATIONALE: Stakeholder partnerships are increasingly becoming the adopted approach to meeting industry needs for skilled workers and workers' need for better jobs. Stakeholder partnerships are forged with industry, government agencies, education institutions, labour, and community organisations to focus on the workforce needs in an industry within a labour market. Partnerships address current and emerging occupational needs and skill gaps. It offers a mechanism to focus scarce resources on industries that are major job providers in an area, as well as to focus comprehensively on the workforce skills, from entry level to advanced, required in the economy. Partnerships provide a means for the NTA and VET institutions to engage directly with industry across traditional boundaries better aligning training programmes and resources. Partnerships help to reduce inefficiencies and streamline state efforts by co-ordinating various projects and braiding various funding streams intended for the same purpose.</i>			
1.1.	Promote partnerships and linkages with employer bodies, education institutions, government agencies, and civic groups to respond to industry and local training needs, build better networks and design responsive training interventions.	<ul style="list-style-type: none"> ▪ The NTA develops a policy implementation framework to promote stakeholder partnerships. ▪ Guidelines and training interventions to support the development and management of partnerships are developed and measured. ▪ The number, type and outputs of partnerships are evaluated and recorded. ▪ Agreements are entered with partners on training projects linked to promoting local economic development. 	NTA/VET institutions/Employer Bodies/Labour Unions/Community Groups/Government Agencies/International Donors
1.2.	Establishing and strengthening stakeholder relationships.	<ul style="list-style-type: none"> ▪ Support to establish a Co-operative Learning Unit in each public VET institution is provided. ▪ Workshops to inform stakeholder of different partnership modalities and develop successful partnerships are held in all regions. 	
1.3.	Information is disseminated to partners to keep them abreast of NTA activities to promote skills development.	<ul style="list-style-type: none"> ▪ Information on NTA and ISC activities, training levy, sector skills plan, occupations in high demand and skills gaps in the industry sector are communicated to stakeholders. ▪ There should be quarterly stakeholder forums with levy-payers each year. 	
1.4.	Encourage industry training clusters where large, medium and small firms in a single industry come together and benefit from synergies of association related to shared skills training, instructors, facilities, benchmarking and best practices.	<ul style="list-style-type: none"> ▪ NTA facilitates development of industry training clusters. ▪ The number of training industry clusters established. 	NTA/DTI/Relevant Departments
1.5.	Encourage public-private partnerships and investment (PPPs) in the VET sector to increase intake capacity and programme choices.	<ul style="list-style-type: none"> ▪ NTA develop a discussion document on PPPs with a view to approval and implementation. 	NTA/Ministry of Education

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
1.6.	Consultations should take place between the Ministry of Education, NTA and the Chamber of Mines (CoM) regarding funding and bursary allocations	<ul style="list-style-type: none"> Evidence of consultations with the Chamber of Mines regarding allocations. 	NTA/Ministry of Education/CoM
1.7.	NTA should facilitate the establishment of an Association for Training Providers to be representative as a united body in Namibia	<ul style="list-style-type: none"> Meeting held with training providers to stress to them the importance of forming an association. 	NTA/ Training Providers
STRATEGIC PRIORITY 2: Increasing access to occupationally-directed learning programmes to support industry growth			
<p>RATIONALE: <i>To become an industrialised country, Namibia needs to address the problem of skills shortages across all sectors of the economy. The issue of Namibia's skills shortages and mismatches have been well documented since independence. There are considerable skills shortages for middle level artisanal skills and high level professional skills that must be mitigated to transition Namibia to a knowledge-based economy in accordance with Vision 2030. The problem of skills shortages is more pronounced among marginalised groups and in the rural communities. High unemployment, particularly for youth, sits alongside job vacancies pointing to structural unemployment in the labour market. By increasing access to occupationally-directed learning programmes, labour market outcomes of the unemployed, marginalised and youth are improved considerably. Access to learning programmes and recognition of prior learning for employed workers can also improve their skills, productivity and promotional opportunities.</i></p>			
2.1.	Occupations in high demand and skills gaps of the industry sector should be prioritised to expand access and allocation of resources.	<ul style="list-style-type: none"> Occupations in high demand are mapped to qualifications and career pathways in the industry sector contributing to improved relevance of training and greater mobility and progression. Qualifications and accredited training programmes for occupations in high demand are developed, if they do not exist. A qualification for Riggers should be developed by the Namibian Qualifications Authority. Skills programmes (unit standards) should be developed for Blasters (surface and underground) NTA should facilitate the development of qualifications for occupational health, hygiene, safety and quality based on UK standards. Strategies for fast-tracking the development of new qualifications to meet occupational shortages are developed and implemented. The number of students enrolled for occupational training programmes in high demand are increased annually to meet the demand-side needs of the labour market. Accredited short skills courses geared towards addressing skills gaps (top up skills) of employees are developed. 	ISC/VETCs/COSDECS/NTA/ NQA/Ministry of Education/ Ministry of Labour and Social works/Donor Agencies
2.2.	Relevant apprenticeships and traineeships should be developed with the support of industry for occupations in high demand currently not registered under the	<ul style="list-style-type: none"> A campaign to promote apprenticeship and traineeship in firms is devised. Competency standards for new apprenticeships and traineeships are developed. 	

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
	apprenticeship and traineeship scheme.	<ul style="list-style-type: none"> ▪ Performance of apprentices and trainees monitored and evaluated. ▪ A national databank of instruments for assessment and moderation of artisan trade tests and traineeship programmes is developed. ▪ A national database of registered assessors and moderators is developed. ▪ Number of apprentices and trainees in VET institutions is increased annually. 	
2.3.	Traineeships and apprenticeships at all public VET Centres will have a liaison officer whose job will be to ensure that the role of the trainee or apprentices both at the workplace or training centre are monitored.	<p>The VET institutions are required to deliver the following:</p> <ul style="list-style-type: none"> ▪ Theoretical training to trainees or apprentices is provided at VETC. ▪ Assessment process of trainees or apprentices undertaken. ▪ Ensure all trainee or apprentices have log books and that supervisors at the workplace sign off the logbook. ▪ All traineeship and apprenticeship contracts are in place. ▪ Provision of traineeships and apprenticeships in firms are increased. 	
2.4.	Capacity of COSDECs is improved to offer accredited training programmes.	<ul style="list-style-type: none"> ▪ An improvement plan is developed to upgrade COSDECs to offer accredited training programmes. ▪ The capacity of COSDECs is expanded to accommodate a diverse student population. 	
2.5.	Skills programmes should be provided to small miners.	<ul style="list-style-type: none"> ▪ A training needs analysis (TNA) should be conducted with the support of the small miners bodies. ▪ Skills programmes should be offered to small miners based on the findings of the TNA. 	
STRATEGIC PRIORITY 3: Improving the efficiency and effectiveness of the VET sector			
<p>RATIONALE: <i>The VET sector has a contributory role to play in transforming Namibia into an industrialised nation with improved quality of life for all Namibians. VET institutions should be geared to address occupational shortages in the country, particularly for technical, technological and employability skills at artisanal level. Currently the VET system is small, underfunded, undifferentiated with poor quality outputs. In this respect it is not meeting the growing needs of students, employers, workers, and marginalised sections of society. Most of the VET institutions are faced with the problem of where demand for places exceeds the supply-side capacity of institutions. There are a large number of young people that should be accommodated in VET institutions and become equipped with the requisite knowledge and technical skills for productive employment and self-employment. In addition to expansion of the VET sector, access should be made for employed workers wanting to enrol on training programmes at VET institutions whilst in employment. Equally important is the need to align the VET sector to the country's overall developmental agenda with links to various strategies such as Vision 2030, NDP 4 and the National Human Resource Development Plan. This will enable the VET sector to contribute more effectively to the goal of inclusive growth and development, and contribute to reducing unemployment and poverty.</i></p>			
3.1.	Expand capacity (institutions and infrastructure) to provide training to address occupations in high demand and skills gaps, enabling improved productivity, economic growth and the ability of the workforce to	<ul style="list-style-type: none"> ▪ An audit of VET institutions earmarked as key providers of industry training is undertaken to establish what improvement, upgrading and expansion is needed. ▪ Approval and funding for such upgrading and improvements are obtained. 	NTA/Ministry of Education/ISC/VETC/COSDECs

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
	adapt to changes in the labour market.	<ul style="list-style-type: none"> An audit of potential institutions to become training providers is undertaken to create the required training capacity to meet occupational demand. Funding for upgrading and improvements for such institutions is obtained. 	
3.2.	Expand student access and increase the range of training programmes at existing VET institutions in trades and occupations that are critical for economic growth and industry competitiveness.	<ul style="list-style-type: none"> Student intake at existing VETC facilities is increased using a range of delivery modes (full-, part-time, distance and blended). Increase the number of accredited private training providers in the VET sector for national qualifications. A baseline of current training by firms in the industry should be established and a 3 year stretch targets of the number of workers in firms that should be trained by VET institutions should be set. 	
3.3.	Promote differentiation in the VET sector in terms of programme mix and target population.	<ul style="list-style-type: none"> Grade 9 learners, employed workers, youth and unemployed adults should be accommodated by VET Centres and COSDECs and progressively increased annually. 	NTA/Ministry of Education/ISC/VETC/COSDECs
3.4.	Develop training programmes to grow the pool of VET instructors and improve the subject knowledge and competencies of existing VET instructors.	<ul style="list-style-type: none"> An audit to establish the number and profile of existing VET instructors is undertaken to determine capacity constraints. Establish what upgrading and retraining they require to meet CBET and other requirements to be registered as competent instructors with the NTA. Create the capacity to provide train-the-trainer programmes for those trainers requiring retraining and upgrading. Number of new VET and existing VET instructors that underwent training. 	
3.5.	Improve the capacity of VET managers to run institutions effectively and efficiently.	<ul style="list-style-type: none"> Professional development programmes are offered in: leadership, organisational development, performance management, strategy, marketing, finance, human resources, client relationships management and finance. The number of VET Managers trained are increased annually. 	
3.6.	VTC should offer programmes at levels 3 to 5 and NIMT from 3 to 6 of the National Qualifications Framework	<ul style="list-style-type: none"> NTA should address this with VTCs and NIMT. 	

STRATEGIC PRIORITY 4: Supporting workplace-based skills development in firms in the industry sector

RATIONALE: Planning and implementing skills development in the workplace is essential to identifying current and future workforce needs in firms. The business environment is dynamic, competitive and can change quickly. Firms that support skills development of employees are in better position to grow their business, improve productivity, support job creation and economic development. Skills development motivates employees to do better in the workplace and support business objectives. For policy-makers and education institutions to develop training solutions that meet the needs of firms,

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
<p><i>employers should communicate workforce training needs to supply-side institutions in the labour market. This will contribute significantly to building the capacity of the VET sector to deliver training programmes that align to workforce needs and ensure work ready graduates that have both the skills and knowledge required by employers.</i></p>			
4.1.	Encourage firms to invest in upgrading the skills of their employees above 1% compulsory training levy.	<ul style="list-style-type: none"> ▪ A baseline is established of training activity in firms in the industry. ▪ Number of firms offering training to employees is increased annually. ▪ Number of employees receiving training is increased annually. ▪ Number of firms spending in excess of 1% of payroll on training is increased annually. 	NTA/Firms
4.2.	Develop the capacity of individual firms to engage systematically in workforce skills planning and implementation.	<ul style="list-style-type: none"> ▪ The NTA develops a workforce skills planning programme firms to undertake the following: <ul style="list-style-type: none"> ○ Identify workforce training needs ○ Align business objective to skills development ○ Develop a workplace skills plan and training report ○ Advise firms on top-up skills, occupations in high demand, accreditation, sourcing training providers, apprenticeships and traineeships, RPL and the use of the training levy ○ Appointing s skills development facilitator ▪ The programme is delivered in all regions annually. 	
4.3.	Promote skills development in small businesses.	<ul style="list-style-type: none"> ▪ A national database of small businesses supported with skills development is established and the impact of training reported on. ▪ NTA through skills planning research identify the skills needs of small and emerging businesses in their industry and promote relevant training programmes through incentives. 	
<p>STRATEGIC PRIORITY 5: Addressing unemployment and employability skills to eradicate poverty and build sustainable livelihoods</p>			
<p>RATIONALE: <i>High unemployment, particularly for youth, is a major challenge for Namibia. The other challenge is high levels of poverty among the population. To transform Namibia into an industrialised country with improved living standards it is necessary to eradicate poverty, high unemployment and underdevelopment. Skills development provides opportunities for the unemployed and marginalised to acquire employability and self-employment skills. The training of workers in the informal economy on basic and generic skills (such as literacy and numeracy) as well as entrepreneurial skills facilitate the transition from self-employment in the informal economy to micro-enterprise development in the formal economy.</i></p>			
5.1.	The Skills Fund is effectively used to address unemployment, develop employability and entrepreneurship skills, and build sustainable livelihoods.	<ul style="list-style-type: none"> ▪ Develop and implement training projects that target the unemployed, marginalised and rural communities to secure employment and build sustainable livelihoods. ▪ Numerical targets to reach vulnerable groups are set annually. 	NTA/NGOs/VETC/COSDECs

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
		<ul style="list-style-type: none"> ▪ NGOs working in local communities are supported. ▪ Link programmes such as TIPEEG with skills development. ▪ Training activities to improve employability and entrepreneurship skills are designed and offered. 	
5.2.	Support the development of low skill, low wage workers for skills development and career advancement	<ul style="list-style-type: none"> ▪ Number of training projects focused on low skill, low wage workers implemented. ▪ Number of worker given recognition of prior learning. 	
STRATEGIC PRIORITY 6: Establishing institutional research capacity for national skills planning			
<p>RATIONALE: <i>There is a need to build institutional skills research capacity and improve labour market diagnosis within the NTA, Industry Skills Councils and VET Centres to analyse skills imbalances and make appropriate funding allocations. The NTA has an important role in conducting industry skills research, gathering statistics and disseminating findings to the public. Their close contact with government agencies, industries and VET institutions puts them in a good position to skills trends, undertake national training needs studies, develop baseline labour market indicators and postulate solutions. Strong research capacity will improve the capacity of decision-makers to determine industry skills needs and guide education and training investments effectively and efficiently. By establishing institutional research capacity, an evidence-based policy-making culture will be developed in the skills development environment.</i></p>			
6.1.	Develop a three year Research Strategy and Implementation Plan (2014-2017) that will include the following: institutional research aims and objectives; research activities; capacity-building interventions; information management; establishment of a research committee; and communication and dissemination of information.	<ul style="list-style-type: none"> ▪ Research strategy and implementation plan approved by NTA Board. ▪ One national skills conference per year. ▪ One tracer study and one employer survey every two years consecutively. ▪ A sector skill plan per industry sector is updated annually. ▪ Occupational mapping analysis per industry is undertaken. ▪ Two industry sector workshops are held annually. ▪ Number of staff research training interventions. ▪ Number of research partnerships developed. ▪ Research Committee established. ▪ Number of research internships recruited. 	NTA/ISC/Board
6.2.	Strategic planning in VET institutions and COSDECS are responsive to labour market shortages	<ul style="list-style-type: none"> ▪ The research skills of VET education managers are improved to analyse training needs in local labour markets. ▪ VETCs and COSDECS conduct employer surveys and tracer studies annually. 	
6.3	Industry skills research is required to inform sound decision-making, monitor industry labour market trends, and measure the impact of interventions and funding allocated.	<ul style="list-style-type: none"> ▪ Research on relevant areas are commissioned and conduct as agreed by the ISC and distributed to stakeholders. 	