MANUFACTURING & RELATED INDUSTRIES SECTOR SKILLS PLAN



JUNE 2014



MESSAGE FROM CHIEF EXECUTIVE OFFICER

We are pleased to present you with the Sector Skills Plan (SSP) for the Manufacturing and Related Industries. 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. Our SSP should resonate with our 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 want practitioners and managers in the workplace to read the document. We will achieve this without compromising the integrity of the research.

The primary target audience are employers, managers, 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 manufacturing and related industries. We are committed to improving the skills of workers and new entrants. Let's join hands and take this industry to new heights.

We hope you contribute to the further development of the SSP in future iterations.

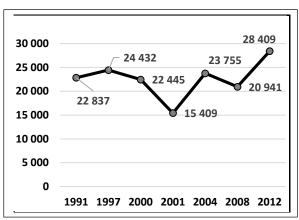
Best wishes!

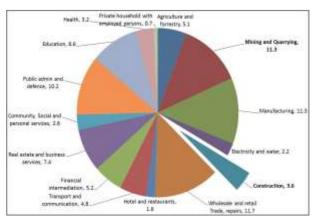
Ms Ester Anna Nghipondoka Chief Executive Officer National Training Authority

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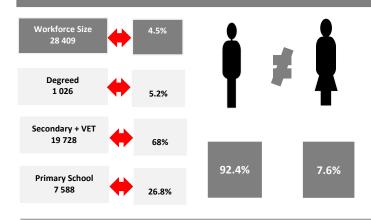
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NAMIBIA'S MANUFACTURING SKILLS CHALLENGE





SKILLS ISSUES





SKILLS SHORTAGES



SKILLS PRIORITIES

Literacy and numeracy

More research on manufacturing

Automation & instrumentation skills

Occupational Health & Safety

VTC curriculum renewal

 $\label{prop:constraining} \mbox{Focus on workplace skills training}$

Technical skills training

Sound work practices and ethics

Technical training for VTC trainers

Create Partnerships with VTCs

Prioritise Apprenticeships Promote Workforce Skills Planning Access to Occupations in High Demand Training Occupational Hygiene, Health, Safety and Environment Support Decent Work

MANUFACTURING AND RELATED INDUSTRIES 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 manufacturing and related industries are as follows:

DIVISION	DESCRIPTION
Division 10	Manufacture of food products
Division 11	Manufacture of beverages
Division 12	Manufacture of tobacco products
Division 13	Manufacture of textiles
Division 14	Manufacture of wearing apparel
Division 15	Manufacture of leather and related products
Division 16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
Division 17	Manufacture of paper and paper products
Division 18	Printing and reproduction of recorded media
Division 19	Manufacture of coke and refined petroleum products
Division 20	Manufacture of chemicals and chemical products
Division 21	Manufacture of pharmaceuticals, medicinal chemical and botanical products
Division 22	Manufacture of rubber and plastics products
Division 23	Manufacture of other non-metallic mineral products
Division 24	Manufacture of basic metals
Division 25	Manufacture of fabricated metal products, except machinery and equipment
Division 26	Manufacture of computer, electronic and optical products
Division 27	Manufacture of electrical equipment
Division 28	Manufacture of machinery and equipment n.e.c.
Division 29	Manufacture of motor vehicles, trailers and semi-trailers
Division 30	Manufacture of other transport equipment
Division 31	Manufacture of furniture
Division 32	Other manufacturing
Division 33	Repair and installation of machinery and equipment

- Manufacturing is regarded as a priority economic sector for Namibia since independence.
- The first National Development Plan (NDP1) published in 1995 stated that "Namibia must reduce its dependence on mineral resources over the medium term and increase output in other areas such as manufacturing. Manufacturing continues to be high on the agenda of the current NDP4.
- Government's commitment to the sector is evident by initiatives such as the introduction of a number of tax incentives, the passing of the export processing zone (EPZ), Competition

 $^{^{\}rm 1}$ United Nations, 2008, ISIC, Revision 4

Act and the granting of Infant Industry Protection to selected industries all aimed at stimulating the development of the manufacturing sector.

- Government's *Industrial Policy (October 2012)*² lays out a foundation for industrial development with quantified objectives being achieved by 2030:
 - o The manufacturing and services sectors contribute 80% of the country's GDP.
 - The country largely exports processed goods, which account for not less than 70% of total exports.
 - Namibia has an established network of modern infrastructure that includes railways, roads, telecommunications and port facilities.
 - Namibia has a critical mass of knowledge workers, and the contribution of SMEs to GDP is not less than 30%.
- The common line of government in all policy documents is that sustained manufacturing growth is a pre-condition for any country, including Namibia, to get richer and develop; since Namibia has no clear advantages in this sector, special attention in the form of targeted support, subsidies, tariff protection, and tax breaks would be necessary to "level the playing field".
- The Namibian manufacturing industry sector has historically been inhibited by a small domestic market, dependence on imported goods, limited supply of local capital, widely dispersed population, high transport and energy costs, small skilled labour force and high relative wage rates, and subsidized competition from South Africa. The industry sector is broadly divided into four subsectors namely meat processing, fish processing onshore, other food products and beverages and other manufacturing.

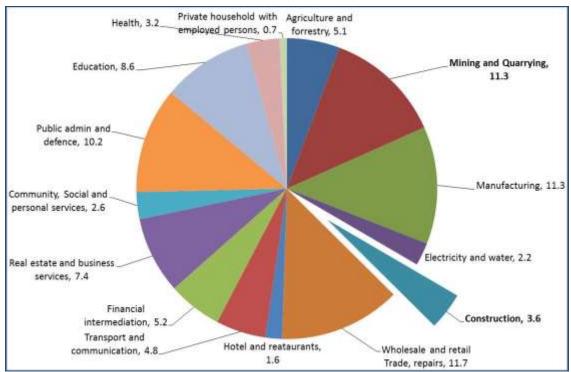
2. MAJOR INDUSTRY STAKEHOLDERS

Ministry of Trade & Industry Regulates Namibia's regulating manufacturing activity, which includes mineral beneficiation, the production of cement, and the processing of semi-precious stones	Other Ministries Other sectors that impact on manufacturing such as mining, agriculture, transport, fisheries, etc.	Local Governments Manufacturing firms locate in local areas
Ports, Roads and Rail Authorities	Manufacturing Firms Meat processing	Logistics Firms
Trade Unions	Fish processing Food & Beverages	Regulators
SACU	Other manufacturing Related industries	Suppliers & Services
Customers	Utilities	Education & Training

 $^{^2\} http://www.nmanamibia.com/Industrial\ Policy_2012.pdf$

3. ECONOMIC PROFILE

Sector contribution to GDP (2012)



Source: Statistics Office, 2012, Labour Force Survey

• 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%³.

4. INDUSTRY CONTRIBUTION TO GDP

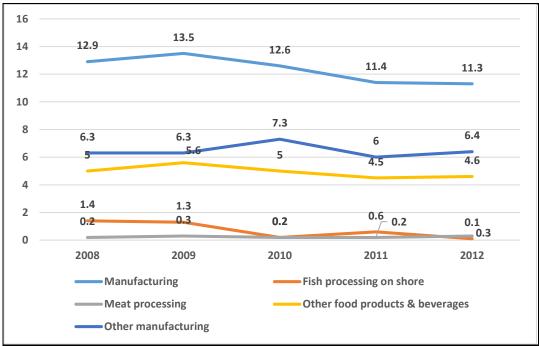
The charts below show the relative size of the industry sector, and its contribution to GDP over the past few years. The manufacturing industry sector consists of 4 main sub sectors, as shown below:

- Meat processing
- Fish processing
- Food and beverages
- Mineral beneficiation

Contribution to GDP is as follows:

³ Statistics Office, 2012, Labour Force Survey (Namibia)

Percentage contribution of the manufacturing sector to GDP



Source: Bank of Namibia (2012)

- As can be noted from the above, manufacturing activity in Namibia is mainly concentrated in 'other manufacturing' activity which involves among other activities manufacturing of textiles and wearing apparel, leather and leather products, wood and wood products, chemicals and non-chemical products, rubber and plastic products, non-metallic mineral products, non- ferrous metals, fabricated metals products, machineries and equipment and diamond cutting and polishing amongst others. During 2012, 'other manufacturing' comprised the largest share of total manufacturing (57%) followed by other food products and beverages (41%).
- Meat processing and fish processing on shore are the least contributors with about 2.2% and 0.6% respectively. Despite the variety of products manufactured in the country, only 20.4% of the total manufactured goods are exported which indicates that a lot needs to be done to reach the vision target of exporting not less than 70%. A disappointing fact is that regardless of the government assistance the manufacturing industry sector receives via incentives and tax subsidies, it has still fallen short of experiencing the robust growth required to meet aspirations of vision 2030.
- The performance of the manufacturing industry sector has been fluctuating, recording a slow growth rate of 1.2% in 2012 (first year of NDP4) compared with a growth rate of 8.5% observed in 2007 (first year of NDP3). This growth is driven by other food products and beverages sub-sector, which increased by 6.5% in 2012 (first year of NDP4) in comparison with 5.1% revealed in 2007 (first year of NDP3). Other manufacturing sub-sectors recorded an increase of 4.7 % in the first year of NDP4

compared to 8% shown in the first year of NDP3. This performance was influenced by positive growth in the textiles, plastic products and diamond processing. The industry sector is dependent on the primary industry activities.

- Key risks to the industry include, a lack of demand for locally manufactured goods by the local population, a skills shortage (technical and managerial skills are required, which Namibia lacks), insufficient Research & Development spend for innovation, new product development etc. Other risks include: high transport/port costs, unfair competition from well-established SA manufacturers, and impact of HIV/AIDS affecting productivity of workforce (Bank of Namibia, 2007).
- The specific agents for expansion of the manufacturing industry which have been identified include agro processing, and mineral beneficiation. A further prospect for the industry is that of taking manufacturing a step further and importing raw materials other than solely creating manufactures from local raw materials.
- Beverage giant SAB Miller plans to spend some N\$40m on a brewery in Okahandja as part of its African expansion. Investor activity also includes a new chicken farm which is anticipated to cover Namibia's demand for broilers. (www.sab.co.za).

5. LABOUR MARKET PROFILE

Share of Employment

According to the Labour Force Survey (NLFS) 2012 conducted by the Namibia Statistics Agency (NSA), the breakdown of employed workers in manufacturing and related industries industry sector is as follows:

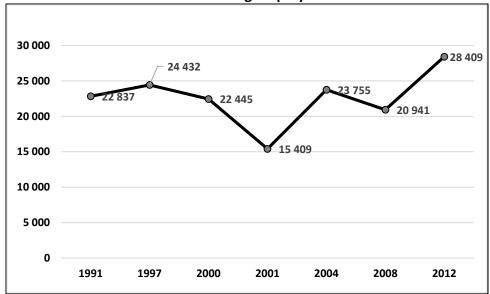
Employment breakdown

Industry	Employed	% of Workforce
Manufacturing	28 409	4.5%
Other industries	601 685	95.5%
Total Employed Workforce	630 094	100.0

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

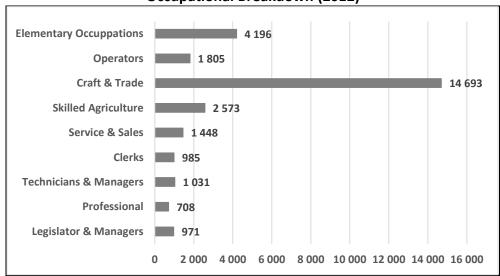
There are 28 409 employed workers in the manufacturing and related industries industry sectors which effectively comprises 4.5% of the total employed labour force. The sector is relatively small.

Manufacturing Employment



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

Occupational Breakdown (2012)



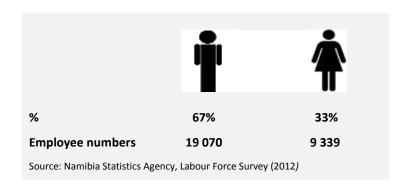
Source: Namibia Statistics Agency , Labour Force Survey (2012)

The above figure shows the following:

- there is a high number of workers in the craft and trade (14 693), elementary occupations
 - (4 196), skilled agriculture (2 573), operators (1 805), services and sales (1 448) and technicians and managers (1 031). This is indicative of the structure of the labour force;

- it is unclear what percentage of the workforce with craft-related qualifications are qualified or have some formal certification in the trades;
- manufacturing is largely labour-intensive which requires skilled workers at intermediate (artisan) and technicians and managers skills levels;
- it is clear that for the manufacturing industry to move up the value chain, there is a need for a high proportion of workers in the professional and technicians' category; and
- the structure of the current workforce indicates a small manufacturing sector meeting the machine maintenance, servicing and assembling needs of the economy.

Gender Breakdown

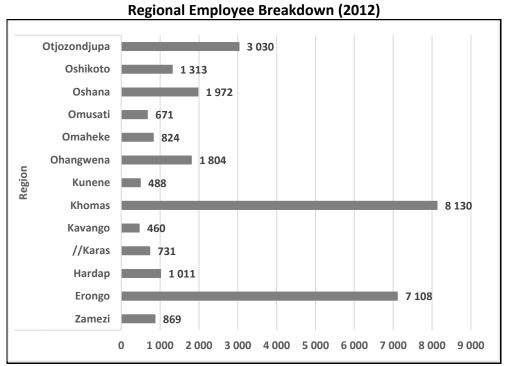


Room for improvement in addressing gender disparities.

Employee Qualifications (2012) High education diploma 66 Completed degree 1 026 Currently at university 91 Technical training after secondary school Secondary school 19 324 Primary school 5 261 Don't know 800 No formal education 1 527 5 000 10 000 15 000 20 000 25 000

Source: Namibia Statistics Agency (2012)

■ The bulk of the employees have primary (5 261) and secondary schooling (19 324).



Source: Namibia Statistics Agency (2012)

Erongo, Otjozondjupa and Khomas are the main manufacturing regions.

6. CHANGE DRIVERS

Key Changes Drivers.....

INDUSTRY ISSUES

IMPLICATIONS

Industry Growth

One of the best ways to transform the economy is to expand the manufacturing base of the country. The economy must attain growth of approximately 6% per year to reach the goals of Vision 2030. This translates in the manufacturing sector having to achieve a growth rate of more than 7% annually to support this target.

Manufacturing growth is a vehicle for economic growth as it has a very high multiplier effect in the economy. For every N\$1 spend on manufacturing development, an additional N\$1.5 - N\$2.5 (depending on the sub-sector of manufacturing) is generated in the rest of the economy through products and services provided to the manufacturing sector.



- There is a need for expanding apprenticeships and internships as a means of bridging the gap between classroom training and the requirements of the real work environment.
- Furthermore, the Manufacturing Strategy Framework stresses the importance of incentive mechanisms for manufacturers to train employees up to global standards and eliminate barriers for skill transfer to the local workforce.
- The private sector is asked to take ownership and increase its contribution to skills development, because ultimately it is the private sector that benefits from a skilled pool.
- A closer relationship between industry and VET (industry input, experiential learning opportunities, job placements) is needed.

Alignment Industrial Policy to Post-School System

All industrialised nations, including newly industrialised nations, lump together an array of economic policies to promote their industries and even companies across the globe. Some of these measures have included the picking of so-called winning sectors; special incentives for manufacturing companies; export subsidies; infant industry protection, often under the pretext of such industries being strategic; and agricultural subsidies. The Namibian Government has also implemented some of these measures, such as the establishment of the export processing zone (EPZ) regime and the special incentives for manufacturing companies – to name but two. For the Namibian Government, industrialisation remains an essential objective in the context of sustainable wealth and job creation.



- There is a need for expansion for VET and Higher Education.
- There is a need to improve the quality and quantity of VET provision. Identify a set of key/strategic occupations or occupation clusters in the EPZs.
- Determine current training requirement and career pathways for key/strategic occupations or occupation clusters
- Determine current training institutions, programmes, modes of delivery key/strategic occupations or occupation clusters

INDUSTRY ISSUES

IMPLICATIONS

Women in Manufacturing

- 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 33% of roles filled by women compared to 67% 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.

SME Opportunities

It has been argued in the policy that: "along with the EPZ programme, the SME sector will take a lead in our drive towards greater beneficiation and value addition to Namibian raw materials". It is further stated that: "given the nature of our raw material endowment, the limited size of the domestic market and the structure of our industries, the greatest opportunities for growth in Namibia lie in the small business sector and manufacturing of niche products for export". Consequently, manufacturing will be supported by means of access to finance and markets, as well as business advisory services, SME modules, common facility centres and vendor development programmes.

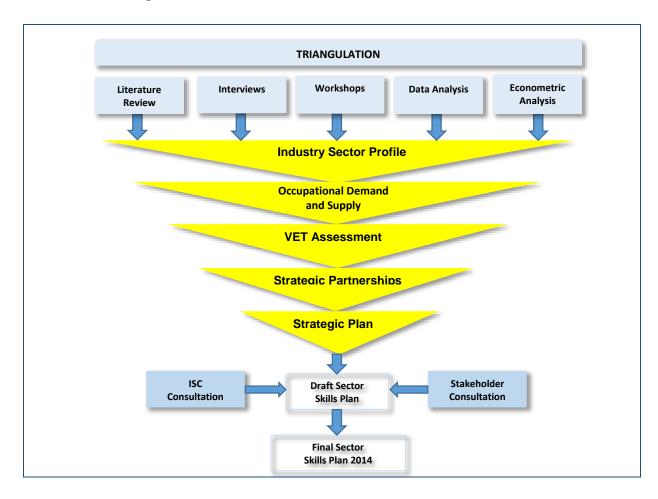


- There should be initiatives on a large-scale to train the unemployed in trades through VET Colleges and COSDECs.
- Develop an apprenticeship/traineeship model that enables SMEs to register apprenticeships geared towards the residential market.
- Work-integrated learning should be accredited leading to qualifications.

7. RESEARCH DESIGN AND METHODOLGY

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

Namibia's Occupational Demand and Supply Outlook Model (NODSOM) is a tool developed by the National Planning Commission (NPC) in 2011, to forecast occupational gaps over time with the objective of providing an integrated accounting framework to analyse the situation and evolution of the labour market.⁴ The main components of NODSOM are occupational demand, occupational supply, and imbalances (net demand).

From an analysis of the literature, interviews, workshops and a skills survey, the following occupations have been identified as in demand:

OCCUPATIONS	NET DE	MAND
	2015	2020
Professionals		
Mechanical Engineer	50	80
Electrical Engineer	50	80
Chemical Engineer	30	50
Industrial Engineer	50	75
Production / Operations Manager	100	175
Technical Training Manager	60	100
Marketing and Sales Manager	75	100
Human Resources Manager	100	200
Financial Manager	100	200
Technicians and Associate Professionals (Semi-Professionals)		
Instrumentation Mechanician	150	250
Mechatronics Technician	50	100
Electrical Engineering Technician	150	250
Mechanical Engineering Technician	150	250
Occupational Health and Safety Officer	175	300
Diamond Cutter	100	200
Diamond Polisher	100	200
Food Technologist	100	200
Baker	150	300

 $^{^4}$ National Planning Commission.2012. National Human Resource Plan 2010-2025, Chapter 3 - NOSDOM

OCCUPATIONS	NET DEMAND		
	2015	2020	
Butcher	100	150	
Dairy Products Maker	40	100	
Operations/Production Supervisor	200	300	
Craft and related trades workers			
Air-conditioning and Refrigeration Mechanic	100	150	
Motor Mechanic	200	200	
Diesel Mechanic	200	250	
Panel Beater	300	400	
Spray Painter	200	300	
Fitter	300	400	
Welder (General)	300	400	
Boilermaker	200	300	
Welded (Coded)	200	300	
Crane, Hoist or Lift Operators	150	250	
Millwright	100	200	
Carpenter	100	150	
Heavy Plant Operator	300	400	
Auto Electrician	100	200	
Electrician	300	500	
Toolmaker	50	100	
Lift Mechanic	10	20	
Structural-metal preparers and erector	50	100	
Upholsterer	75	100	
Cabinetmaker	150	250	
Plant and machine operators and assemblers	<u> </u>		
Machine Operator	300	500	
Truck Driver	200	300	

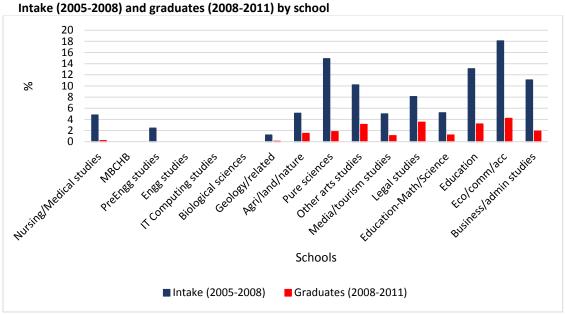
9. SKILLS SUPPLY

Higher Education and Training Enrolments and Graduate Outputs

- 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 and IT and science.



Source: Insight Namibia Report 2012/2013

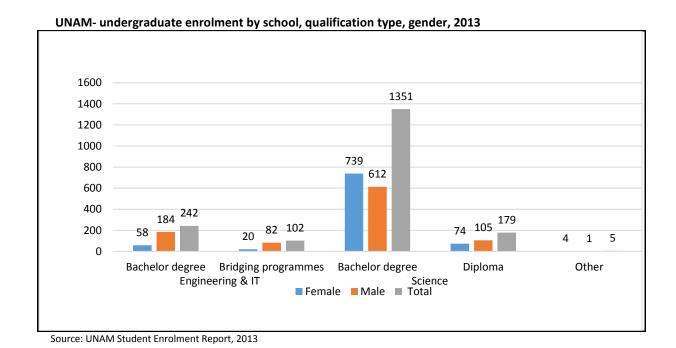
- There is minimal to no intake in the school of engineering and IT studies for the period (2005-2008).
- Whilst there is a 14.9% intake for science for the same period, the graduation rate of 1.8% is very low.

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

Source: Insight Namibia Report 2012/2013

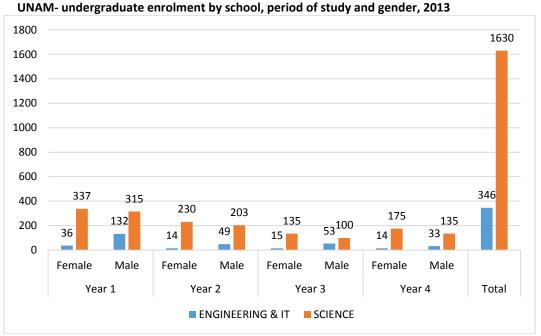
- The figure above provides further support to the low science graduate rates (4.9%) despite a 28% intake.
- The total undergraduate enrolment at UNAM for 2013 was 17 536. This comprised 10 897 females and 6639 males. A total of 1 879 students, comprising 10.7% of the total student enrolment, undertook 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.



- 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.



Source: UNAM Student Enrolment Report, 2013

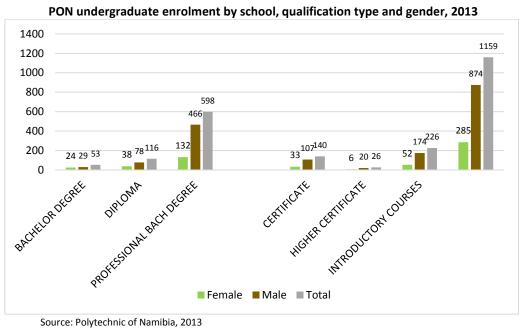
- There are 36 female students in engineering and IT intake in year 1 by year 4 its down to 14, while male year 1 intake is 132 and by year four is 33.
- The dropout rate from year to year is very high, hence impacting negatively on the throughput rate and increasing the skills shortages in the industry.
- Female science intake in year 1 is 337 and by year 4 its 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 compromising 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.

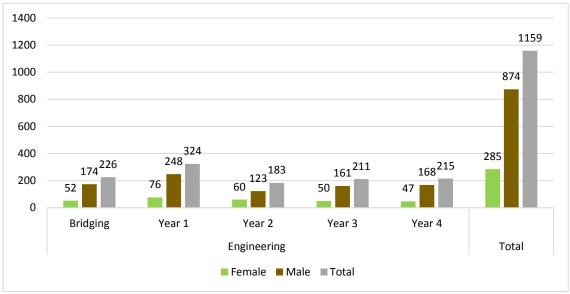
The figure below provides a breakdown of undergraduate enrolment by school, qualification type and gender for 2013.



- 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.

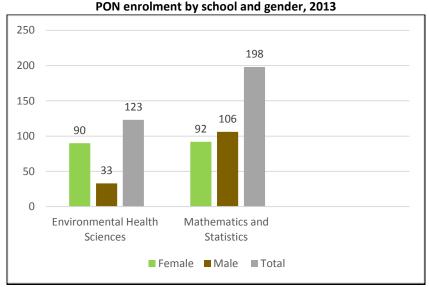
PON- undergraduate enrolment by school, period of study and gender, 2013



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 PoN School of Health and Applied Sciences which includes Biomedical Sciences, Environmental Health Sciences and Mathematics and Statistics offers programmes which can benefit the manufacturing sector. For the purposes of this SSP, only Environmental Health Sciences and Mathematics and Statistics were considered. A total 198 students, comprising 1.5% of the total student enrolment undertook programmes in the departments of Environmental Health Science and Mathematics and Statistics. Although enrolment was minimal, students graduating from these programmes would be useful to the manufacturing sector. More students should be encouraged to pursue programmes in these fields.



Source: Polytechnic of Namibia, 2013

The figure above reveals the following:

- There is a major discrepancy in female (73.2%) enrolment for environmental health sciences compared to male (26.8%) enrolment.
- Due to the skills shortages in the sector, males should be encouraged to take on qualifications offered in this field.
- The gender discrepancy for mathematics & statistics, females (46.5%) and males (53.5%) is reducing. This is encouraging as it indicates that females are keen to pursue qualifications in the field of mathematics & statistics.

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)⁵ 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.

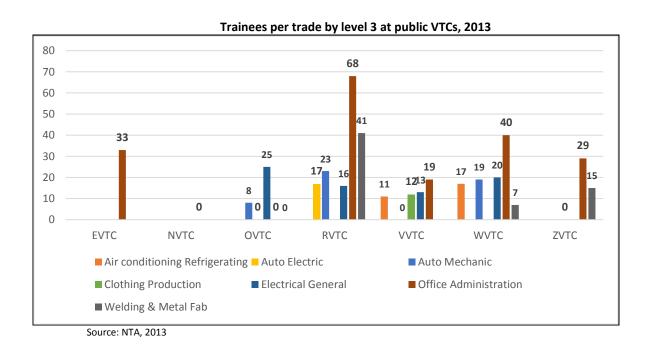
⁵ Aurelia David, The Namibian, 2 September 2013.

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 manufacturing industry sector.
- Enrolments at public VET Colleges for trades in the manufacturing industry are illustrated for 2013 from data supplied by the NTA below:



The figure above reveals the following:

- the enrolments at the VTCs is generally very low, with one college not having any trainees in the trades mentioned;
- generally, the intake for office administration appears to stand out and this is in keeping with the industry needs;

- the very low trainee enrolments at level 3 for almost all courses 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 manufacturing;
- 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 increased⁶ 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

- 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 ration of 1:3.

⁶ 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 destinations⁷.
- 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

⁷ KAYEC Trust, 2013, Tracer Study

their assessment of the relevance and quality of their education within their work context. The views of employers of graduates were obtained.⁸

- 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.
 - o 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.
 - O 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.

⁸ NCHE, 2011, Tracer Study

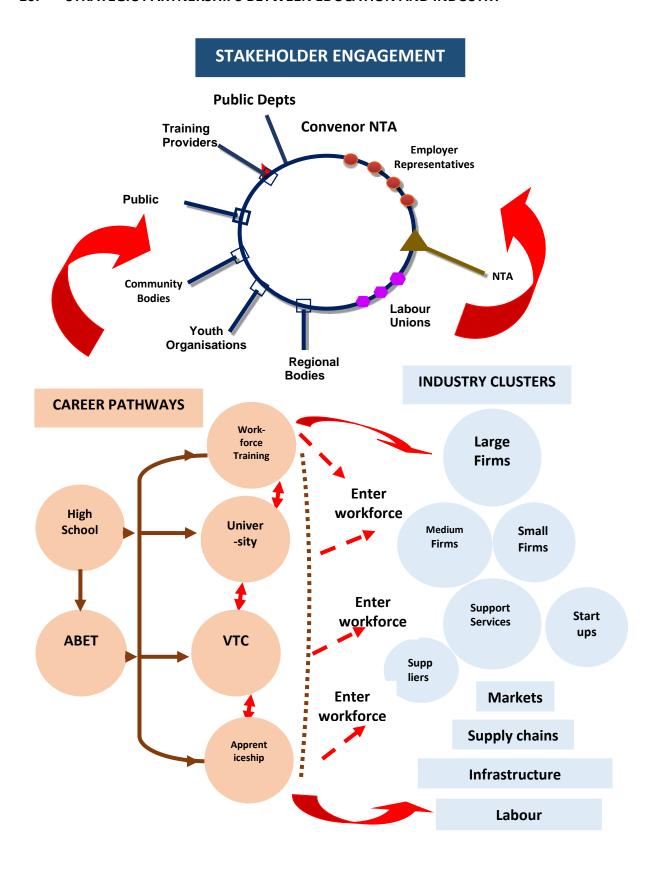
- Some of the major findings from employers include:
 - o Employers do see benefits from the employment of graduates.
 - However, some employers feel that graduates are not adequately prepared for work. They are seen to lack experience of the workplace.
 - Most employers are apparently not satisfied 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.
 - o 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

- Stakeholder partnership should be formed by the industry to address common skills needs and generate coordinated solutions that benefit all stakeholders.
- Stakeholders working together create career pathways based on industry needs for workers.
- 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

- 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.
- 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

- Inputs from industry clusters inform stakeholder discussions.
- Effective career pathways requires coordination 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.

- Developing sector skills plans to improve the performance of the industry.
- Creating a skilled and adaptable workforce.
- Employment progression and career definition.

11. STRATEGIC PLAN

NO	ACTIONS		LEAD					
		SUCCESS INDICATORS	AGENCY					
STRAT	STRATEGIC PRIORITY 1: BUILDING EFFECTIVE STAKEHOLDER PARTNERSHIPS FOR SKILLS DEVELOPMENT IN THE							
INDU	INDUSTRY SECTOR							
RATIC	RATIONALE: Stakeholder partnerships are increasingly becoming the adopted approach to meeting industry needs							
for sk	illed workers and workers' need for better jobs. Stakeholder part	nerships are forged with industry,	government					
agend	ies, education institutions, labour, and community organisations	to focus on the workforce needs in	n an industry					
	a a labour market. Partnerships address current and emerging	= :						
	anism to focus scarce resources on industries that are major j	· · · · · · · · · · · · · · · · · · ·	-					
-	rehensively on the workforce skills, from entry level to advanced,							
	ins for the NTA and VET institutions to engage directly with industr							
	ng programmes and resources. Partnerships help to reduce ine	-	fforts by co-					
	ating various projects and braiding various funding streams inten							
1.1.	Promote partnerships and linkages with employer bodies,	 The NTA develops a 	NTA/VET					
	education institutions, government agencies, and civic groups	policy implementation	institutions					
	to respond to industry and local training needs, build better	framework to promote	/Employer					
	networks and design responsive training interventions.	stakeholder partnerships.	Bodies/Lab					
		Guidelines and training	our					
		interventions to support	Unions/					
		the development and management of	Communit					
		partnerships are	y Groups/Go					
		developed and	vernment					
		measured.	Agencies/I					
		The number, type and	nternation					
		outputs of partnerships	al Donors					
		are evaluated and	G. 2 G. G. G					
		recorded.						
		Agreements are entered						
		with partners on training						
		projects linked to						
		promoting local						
		economic development.						
1.2.	Establishing and strengthening stakeholder relationships.	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						
1.2	Information is discomingted to wante out to be set to see the see the	all regions.						
1.3.	Information is disseminated to partners to keep them abreast	■ Information on NTA and						
	of NTA activities to promote skills development.	ISC activities, training						
		levy, sector skills plan, occupations in high						
		occupations in high demand and skills gaps in						
		the industry sector are						
		communicated to						
		stakeholders.						
		stakeriolaeis.						

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
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.	 NTA facilitates development of industry training clusters. The number of training industry clusters established. 	NTA/DTI
1.5.	Encourage public-private partnerships and investment (PPPs) in the VET sector to increase intake capacity and programme choices.	 NTA develop a discussion document on PPPs with a view to approval and implementation. 	NTA/Minis try of Education

STRATEGIC PRIORITY 2: Increasing access to occupationally-directed learning programmes to support industry growth

RATIONALE: 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.

	earning for employed workers can also improve their skills, produ	1	· · · · · · · · · · · · · · · · · · ·	
2.1.	Occupations in high demand and skills gaps of the industry	•	Occupations in high	ISC/VETCs/
	sector should be prioritised to expand access and allocation of		demand are mapped to	COSDECS/
	resources.		qualifications and career	NTA/
			pathways in the industry	NQA/Minis
			sector contributing to	try of
			improved relevance of	Education/
			training and greater	Ministry of
			mobility and progression.	Labour and
		•	Qualifications and	Social
			accredited training	works/Don
			programmes for	or
			occupations in high	Agencies
			demand are developed, if	
			they do not exist.	
		•	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	
			(10 h ab 21(1110) 01	

NO	ACTIONS	SUCCESS INDICATORS	LEAD
		employees are	AGENCY
2.2.	Relevant apprenticeships and traineeships should be developed with the support of industry for occupations in high demand currently not registered under the apprenticeship and traineeship scheme.	developed. A campaign to promote apprenticeship and traineeship in firms is devised. Competency standards for new apprenticeships and traineeships are developed. 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.	The VET institutions are required to deliver the following: 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	
2.4	Capacity of COSDECs is improved to offer accredited training programmes.	firms are increased. An improvement plan is developed to upgrade COSDECs to offer accredited training programmes. The capacity of COSDECs is expanded to accommodate	

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
		a diverse student population.	
2.5	Offer skills programmes needed by industry in Health and Safety, Driver training, advanced driver training, transportation of dangerous substances, literacy and numeracy, work ethics, HIV/AIDs,	Programmes offered by VTCs and tertiary institutions	

STRATEGIC PRIORITY 3: Improving the efficiency and effectiveness of the VET sector

RATIONALE: 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.

contribute to reducing unemployment and poverty.					
3.1.	Expand capacity (institutions and infrastructure) to provide	•	An audit of VET	NTA/Minis	
	training to address occupations in high demand and skills gaps,		institutions earmarked as	try of	
	enabling improved productivity, economic growth and the		key providers of industry	Education/	
	ability of the workforce to adapt to changes in the labour		training is undertaken to	ISC/VETC/	
	market.		establish what	COSDECs	
			improvement, upgrading		
			and expansion is needed.		
		-	Approval and funding for		
			such upgrading and		
			improvements are		
			obtained.		
		•	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	-	Student intake at existing		
3.2.	programmes at existing VET institutions in trades and		VETC facilities is increased		
	occupations that are critical for economic growth and industry		using a range of delivery		
	competitiveness.		modes (full-, part-time,		
	competitive ress.		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		

NO	ACTIONS		LEAD
		SUCCESS INDICATORS	AGENCY
3.3.	Promote differentiation in the VET sector in terms of programme mix and target population.	stretch targets of the number of workers in firms that should be trained by VET institutions should be set. Grade 9 learners, employed workers, youth and unemployed adults should be accommodated by VET Centres and COSDECs and progressively increased	NTA/Minis try 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.	 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 	
3.5.	Improve the capacity of VET managers to run institutions effectively and efficiently.	existing VET instructors that underwent training. 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.	

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, 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.

NO	ACTIONS	SUCCESS INDICATORS	LEAD
4.1.	Encourage firms to invest in upgrading the skills of their employees above 1% compulsory training levy.	 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 	NTA/Firms
4.2.	Develop the capacity of individual firms to engage systematically in workforce skills planning and implementation.	annually. ■ The NTA develops a workforce skills planning programme firms to undertake the following: ✓ Identify workforce training needs ✓ Align business objective to skills development ✓ Develop a workplace skills plan and training report ✓ Advise firms on topup skills, occupations in high demand, accreditation, sourcing training providers, apprenticeships and traineeships, RPL and the use of the training levy ✓ Appointing skills development facilitator ■ The programme is delivered in all regions annually.	
4.3.	Promote skills development in small businesses.	 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 	

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
		relevant training	
		programmes through	
		incentives.	

STRATEGIC PRIORITY 5: Addressing unemployment and employability skills to eradicate poverty and build sustainable livelihoods

RATIONALE: 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.

aevei	opment in the formal economy.			
5.1.	The Skills Fund is effectively used to address unemployment, develop employability and entrepreneurship skills, and build sustainable livelihoods.	•	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. 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.	NTA/NGOS /VETC/COS DECS
5.2.	Support the development of low skill, low wage workers for skills development and career advancement	•	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

RATIONALE: 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

NO	ACTIONS	SUCCESS INDICATORS	LEAD AGENCY
estab	establishing institutional research capacity, an evidence-based policy-making culture will be developed		
	opment environment.		
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.	 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/B oard
6.2.	Strategic planning in VET institutions and COSDECS are responsive to labour market shortages	 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.	 Research on relevant areas are commissioned and conduct as agreed by the ISC and distributed to stakeholders. 	
6.4	Basic Literacy Training	 Assist employers to upgrade employees Basic literacy levels through NAMCOL by providing financial assistance to complete Grade 12 as part of priority funding. 	
6.5	Consideration of Internal Training for low level positions	 Recognition of internal training provided at the work place. 	