REPORT ON THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING 2019

REPORT ON THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) PITSO 2019
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Human Resource Development Council (HRDC) in collaboration with its key partners hosted the TVET Pitso from 20th - 21st February 2019, at Palapye International Convention Centre. The theme for the said Pitso was Nurturing and Managing TVET in a Global and Competitive Economy.

The TVET Pitso brought together key stakeholders to dialogue on issues of concern with the view to come up with findings and recommendations to transform the quality of TVET. The Pitso resulted in An Action plan to guide and facilitate the implementation of the highlighted recommendations. The recommendations are meant to transform TVET and accord it the attention it deserves as a sub-sector, that has the potential to equip candidates with employable skills in order to enhance their employability and most importantly promote their significant contributions, to the national economy.

The participants were drawn from key stakeholders who by virtue of their mandates and functions, were seen to be having vested interest in skills training and development. This included Human Resource development organisations, Training Authorities, workplaces, government ministries and Departments as well as Education and Training Providers (ETPs).

The Pitso also set out to address perceived failures by TVET graduates to meet the job market needs as they lack competencies and skills needed by the workplace to drive the national economy. The national economy skills needs require a strong link between ETPs and Industry to enhance blending between theory and actual practice. This ensures that the input of the industry plays a critical role in shaping the curriculum design to address the skills needs of the labour market.
Although Botswana has a relatively high number of public and private TVET education and training providers, the outcry of skills mismatch by the industry still persists. The concern has always been that the skills possessed by graduates are not aligned to the skills needed to advocate the economy (job marketing) and hence making it difficult for them to be employable.

The main focus of the Pitso was based on the following two pillars:

1.) To create a platform for dialogue by key stakeholders in TVET.
2.) To come up with appropriate interventions to address issues of concern in TVET, such as: lack of recognition, inadequate funding, and low absorption of TVET graduates.

Transforming the quality of the national TVET system significantly addresses the national outcry by contributing to the national strategies as enshrined in Vision 2036 and National Development Plan (NDP)11.

Pillar One of Vision 2036 emphasises on the following which are based on the country’s human resource development:

• A knowledge - based economy - the country’s education, training and skills development system will be developed to enhance science, innovation and technology.

• Human Capital - human capital plays an important role in the development of the economy. It produces human resource that drives growth across economic sectors. Competent, productive and competitive human capital is also an enabler for the development of emerging industries and new sources of economic growth.

• Education and skills development - education and skills are the basis for human resource development as they provide citizens with competencies to attain their full potential, thereby enabling them to participate in the national economy and compete globally.

According to Vision 2036, Botswana is faced with high unemployment rates (above 20 percentage) especially among the youth. The high youth unemployment is attributed partly due to the fact that supply of skills from Education and Training Sector does not match the skills needs of the job market, resulting in high graduate unemployment.

It remains evident that HRDC is, through the Pitso and other similar fora, committed to encourage and support all initiatives intended to effectively enhance skills training and development in order to equip TVET graduates with employable competencies to curb two critical national challenges, namely:

• Youth unemployment
• Poverty

Dr Raphael Dingalo
Chief Executive Officer, HUMAN RESOURCE DEVELOPMENT COUNCIL
Consequently, the learners are seemingly not interested in engaging in skill-based education as they perceive it as a low status jobs. However, Botswana just like any other developing country, it need equipped personnel / human capital with technical and vocational skills. According to the report, there are many vacancies that are not filled despite the fact that there are unable to fill these vacancies due to a lack of relevant skills. Vacancies that require technical and vocational skills in Botswana are mostly occupied by foreigners as they possess the relevant vocational and technical skills required by the job market.

This therefore necessitated the Human Resource Development Council (HRDC) organize a two day conference held in Palapye, Botswana from (20th-21st February, 2019) under the theme ‘Nurturing and Managing TVET in a Global and Competitive Economy’. The main objectives were twofold: to develop interventions that address issues resulting into lack of recognition, inadequate funding, and low absorption of TVET graduates by the labour market; and to create a platform for dialogue with key stakeholders in the TVET sub-sector. Specifically, the Pitso sought out to address the following five objectives:

- To prioritise TVET through policy advice and resourcing;
- To promote participation of industry in TVET reforms and provision;
- To promote recognition and uptake of TVET by prospective learners;
- To advocate for quality and relevant TVET to enhance graduates’ employability; and
- To monitor and evaluate the implementation of the action plan on TVET reforms.

The Pitso was divided into the following four sub-themes:

- Attachments, Apprenticeship, and
Internships;
• TVET Funding;
• Quality and Relevance of TVET to Labour Market Needs; and
• The Contribution of the TVET Sub-Sector in the National Economy.

In addition to these sub-themes there was provision for testimonies from industry, partners, and TVET graduates. On the sub-theme of attachments, apprenticeship and internship, participants observed that there is no common definition of attachments, apprenticeship or internship and that this poses a problem as there is no standard that everyone abides by. It was recommended that a common understanding of these terms should be established for the sake of all stakeholders. There is no standard duration for attachment, apprenticeship, and internships; therefore each vocation sets its own. It was recommended that a standard duration for these be set and followed by all as recommended by the Society of Cooperatives. There is a lack of meaningful engagement of the learner by industry and it was recommended that stakeholders should engage interns in vocations that are relevant to their training which will equip them with the necessary skills and prepare them for the workplace environment. Finally, there are no defined competencies for learners on attachment. It was recommended that industry should develop tools to assist learners to achieve these required competencies.

The focus of the second sub-theme was TVET funding. It was observed that the major challenge in the development of TVET funds is lack of funding, and that currently TVET funding comes from the various sources such as the Human Resource Development Fund (HRDF), the Tourism Levy, the Construction Industry Trust Fund (CITF), and the Department of Tertiary Education. It was recommended to adopt the German Model of funding that was presented at Pitso conference, but with a modification to include alumni contribution to TVET Funding. Additionally, it was suggested that there be one institution which consolidates and administers all TVET funds, and that Government should contribute to TVET funds should there be insufficient funding. Finally, it was recommended that funds should be available to finance the running of institutions, and particularly the provision of infrastructure.

The third sub-theme focused on perceptions regarding the quality and relevance of TVET programmes. It was observed that although most programmes are relevant, they face quality challenges such as the mismatch between theory and practice in the discipline, and a lack of resources such as equipment and human capital. It was recommended that TVET institutions should have continuous engagement with the industry to ensure that what the training offered resonates with the industry requirements. Secondly programmes are not reviewed regularly resulting in some institutions delivering obsolete learning material which is not in line with ever-changing technology. It was recommended that standards of programme reviews should be monitored to make them relevant. Thirdly, the labour market is not ready for TVET graduates. On this point the fast tracking of the implementation of the Labour Market Observatory (LMO) was recommended.

The fourth sub-theme addressed the contribution of the TVET sub-sector to the national economy. It was observed that the TVET programme was outdated with regards to terms of content and resources. It was recommended that Training of Trainers (TOT) be retooled by according them industry exposure that will enable them to acquire TVET Training cadre which is a scarce skill that will eventually attract BGCSE Top Achievers. Secondly it was noted that there is inadequate human capital with requisite competencies to deliver graduates appropriate for the economy. Retooling in terms of the training of trainers (TOT) with industry exposure was recommended and to make the TVET trainer cadre a scarce skill to attract top high school graduates. Lastly, it was observed that High school top achievers are not willing to enrol in TVET programmes. It was recommended that TVET should be promoted to be part of the general education and to introduce multiple learning pathways in the education system.
TVET PITSO participants included stakeholders from various sectors of the economy such as:

- The Permanent Secretary, Ministry of Tertiary Education, Research, Science and Technology (MOTE), Dr Theophilus Mooko.
- The Deputy Permanent Secretary, MOTE, Mr Oupa Masesane.
- The Director, Teacher Training and Technical Education, MOTE, Mr Mathogonolo Mokakapadi.
- The Deputy Director; Department of Teacher Training and Technical Education, Mrs Dorcas Phirie.
- The Permanent Secretary, Ministry of Employment, Labour, Productivity and Skills Development (MELSD), Mrs Pearl Ramokoka.
- The Acting Director, Skills Development, MESLD, Mrs Motlalepula Mabisi.

**Government Departments:** Gender Affairs; Roads Department; Department of Tertiary Education Financing (DTEF); Directorate of Public Service Management (DPSM); Central Regional Operations – Education Office; District Commissioner.

- **HRDC Personnel:** The Chief Executive Officer (CEO), Dr Raphael Dingalo; The Director, Department of Funding, Mr Mothusi Masole; The Director, HRDP Supply, Dr Ellah Matsediso; The Director, DSRDI, Dr Tlamelo Sekambo; The Director, HRDP Demand, Dr Ferdinand Siamisang; Workplace Learning Team (Ms Doreen Kokorwe, Mr Kelesitse Maikaelelo, Ms Amogelang Mokobela and Mr. Modiri Jerry Mogopa; Local Organising Committee Members, Mr. Lebotsamang Mohutsiwa, Ms Oratile Madisa, Ms Batsalelwang Tladi, Ms Kebabonye Molosiwa, Ms Boikhutso Monyaku and Mr Bautule Diboko.

- **International Organisations:** The European Union, Professor Roy Howard du Pré (Guest speaker); Attaché, Cooperation Officer, European Union Delegation to Botswana and SADC, Gaborone, Ms Catarina Caetano; German Society for International Cooperation ‘Gesellschaft für Internationale Zusammenarbeit’ (GIZ), Ms Sabina C. Gebauer; and The Education Programme Officer, United Nations Educational Scientific & Cultural Organisation (UNESCO), Mr Edwin O. Molefhe.

- **Higher Institutions of Learning:** The University of Botswana (UB), The Vice Chancellor, Professor David Norris; The Deputy Dean, Faculty of Engineering, Dr O. B. Molwane; Botswana International University of Science and Technology (BIUST), Associate Professor Goitseone Malumbela; Botswana Open University (BOU); and the Botswana University of Agriculture and Natural Resources (BUAN), (Name).

- **Colleges:** Molepolole College of Education(MCE); Tonota College of Education (TCE); Serowe College of Arts(SCA); Tlokweng College of Education (TCE); Institute of Health Sciences (IHS); Tonota College of Education; Tlokweng College.

- **Technical and Vocational Colleges:** The Principal, Francistown College of Technical and Vocational Education, Mr. Tobedza; Oodi College of Applied Arts and Technology, Mr Maggi Khumalo; Roads Training Centre (Name); New Era College; Gaborone Technical College (GTC), Mr Micheal Gwebu; Imperial School of Business and Science (Name); Institute of Development and Management (IDM); Botswana Wildlife Training Institute, Maun (BWTI); Gaborone College of Culinary Arts, (GCCA); Road Master Driving School, Mr. Kebadire Ellias.

- **Industry:** The Training and Development Manager, Orapa Training Centre, Mr Banyatsang France; Business Botswana, Finance and Business; Local Enterprise Authority (LEA); The Acting Executive Director, Construction Industry Trust Fund (CITF), Mr Sabryn K. Tse Botswana Chamber of Mines, Mr Oketefetse Odisitse; FLO-TEK Botswana; DEBSWANA/ BIE; Botswana Examinations Council (BEC); Botswana Power Corporation (BPC); Morupule Coal Mine; Seven Steel Pipe Group; J. Haskins and Sons; Dennis Toyota; Francistown Toyota; Broadway Toyota; Botswana Primary Teachers Association (BOPRITA); SAGO Investments; Media Ray (PTY) (LTD); RAVOS; PANDA Brickbuild; Botswana Ash; US Transporters; KOMATSU Botswana; A.K. Ruwana & Sons.

- **Regulatory Bodies:** Botswana Qualifications Authority (BQA); Engineers Registration Board (ERB)

- **Town/City Councils:** Village Development Committee members.

- **Schools:** Primary and Secondary Schools; Pudulogong Rehabilitation Centre.
ETP’S Who Attended Tvet Pitso:

Road Mater Driving Academ; Brain Empire Center; Serowe College of Arts; Botswana Open University; Roads Training Center; Selibe Phikwe Technical College; New Era College; Gaborone Technical College; Tlokweng College; Institute of Health Sciences-Francistown and Serowe; RAVOS; Botswana Wildlife Training Institute; Mmaphula Junior Secondary School; Francistown College of Technical and Vocational Education; Gaborone University College; University of Botswana; Institute of Development Management; Molepolole College of Education; Mmei CJSS; Sebeso Primary School; Tonota College of Education; Lotsane Senior Secondary School; Lerala CJSS; Imperial School of Business and Science; Botswana International University of Science and Technology; Construction Industry Trust Fund (CITF); DDT College; Gaborone College of Culinary Arts; Botswana University of Agriculture and Natural Sciences; Pudulogong Rehabilitation Center
ACKNOWLEDGEMENT

The success of the Pitso is attributed to all the Ministries, Departments, Industry and Tertiary Education Institutions for the support they rendered through their full attendance and meaningful contributions during the discussions. These made quality inputs to findings and recommendations that facilitated a comprehensive and robust action plan. Henceforth, HRDC would like to profoundly extend its appreciation to all organisations and institutions that rendered their unwavering support by honouring the invitation to attend the Pitso.

Special appreciation from the HRDC Board and the CEO is extended to the following;

1.) Dr Theophilus Mooko, the Permanent Secretary in the Ministry of Tertiary Education, Research, Science and Technology who laid a good platform for the event through delivery of the official opening speech.
2.) Mrs Pearl Ramokoka, the Permanent Secretary in the Ministry of Employment, Labour Productivity and Skills Development for the informative address on the Vocational Education and Training Interventions.
3.) Professor Roy Howard du Pré from European Union who shared his rich and factual insights on TVET across the globe.
4.) All presenters for the well-informed presentations.

I would like to recognise the magnificent contribution made by the testimonies, especially Ms Tshepiso Tsimakanyane, who is graduate with Clothing Design and Textiles in 2005. She is self-employed as a Fashion Designer since 2014 and she has remained stable in her business. Her business has grown in leaps and bound there by inspiring other young people. Ms Tshimakagae attested that indeed TVET is a life changer due to its high employment potential.

Our most heartfelt gratitude goes to the following organisations for their assistance in co-sponsoring the event;

• Ministry Of Tertiary Education, Research and Technology(MoTE)
• Human Resource Development Council(HRDC)
• Botho University for financing traveling costs for the Guest Speaker Mr Gaolekanye Setare.

I wish to take this opportunity to thank the National TVET Advisory Committee (NTAC) and the Local Organising Committee for the effort and quality time they invested towards preparation of the Pitso.

In conclusion, I extend special gratitude to the University of Botswana Rapporteurs, Department Of English who captured the TVET Pitso proceedings and produced this Pitso Report.
In his opening remarks Dr. Raphael Dingalo noted that there is a misconception from the public regarding Technical Vocational and Education Training (TVET) as it is largely believed that TVET graduates suffer. However, he argued that TVET can boost economic growth and create employment. He noted that the selection of speakers for this TVET Pitso bear in mind the aim of the Pitso which was to formulate the outlines of appropriate multi-sectorial and co-ordinated policies and strategies geared towards Technical and Vocational Education and Training, job creation, as well as identifying crucial innovations in educational policies and strategies that would coordinate better with new and wider socio-economic approaches, and play their own part in more effective job creation. He observed that speakers were invited from outside the country so that participants could borrow a leaf from international experiences in accelerated job-creation served by revitalised educational practices. International speakers compromised; participants from UNESCO, The European Union, and SADC, such as Ms Catarina Caetano, the Representative of the Delegation of the European Union to the Republic of Botswana and SADC who has played a critical role in shaping the development and revitalisation of TVET in other SADC countries; and the German Society for International Cooperation (GIZ).

A warm welcome was also extended to colleagues from the Ministry of Employment, Labour Productivity and Skills Development and the Ministry of Tertiary Education, Research, Science and Technology and their agencies such as Botswana Institute for Technology Research and Innovation (BITRI), Botswana International University of Science and Technology (BIUST), and Botswana Examinations Council (BEC), Botswana Qualifications Authority (BQA); representatives and captains of industry and TVET teaching institutions; labour organisations; Botswana Chamber of Mines (BCM), and others. He noted that since the theme was “Nurturing and Managing TVET in a Global & Competitive Economy” AND that the sub-themes would guide the discussions. He expressed enthusiasm that at the end of the day, whatever recommendations the TVET Pitso made would have been drawn from experiences and trends elsewhere as well as from within.
In officially opening of the TVET Pitso held in Palapye, The Permanent Secretary in the Ministry of Tertiary Education, Dr Theophilus Mooko, noted that the concept of TVET embraces the importance of innovation, competitiveness, productivity, and the growth of the economy. He observed that innovation creates new employment opportunities and it also requires new approaches to education and training which can meet the demand for new skills. He noted that the forum had brought together key partners in the TVET, and that it is the key players in TVET who can transform this sub-sector to be the leading turbine to drive the economy locally and globally. He further observed that there are indeed challenges that negatively affect the growth of TVET in the global spectrum (Botswana included) which include: inadequate TVET funding, low recognition, failure to meet the job market skills requirements, low engagement with industry, and inappropriate training and development of TVET trainers and/or teachers. This, he said, calls for all key stakeholders to come on board towards creating a positive TVET environment that allows visible involvement of the industry in TVET in terms of financing through the levy system, for example, and participation in programme delivery and assessment. He further noted that was imperative that industry plays an important role in identifying training priorities to inform and guide curricula design and development. He noted that there are three key areas that should result from having a strengthened TVET:

a) Building strong Public Private partnerships (PPP) for the benefit of a revived and efficient national TVET system, and ultimately increasing youth employment.

b) The dialogue will come up with findings and recommendations that will shape and refocus our TVET to become demand-driven in order to appropriately provide for the skills needed to drive the national economy and improve Botswana’s participation in the global economy.

c) Most importantly, an Action Plan should be drawn from the Pitso discussions, findings, and recommendations.

He emphasised that discussions from the Pitso should result in solutions which will bring change in addressing current challenges facing graduates and youth employability.
In her address, the Permanent Secretary in the Ministry of Employment, Labour Productivity and Skills Development (MELSD), Mrs Pearl Ramokoka indicated that it has become evident to nations that the prosperity of Botswana’s economy depends among other issues, on the effective and efficient utilisation of human resources, and hence the prioritisation of TVET. She also noted that as a country we are faced with the challenge of unemployment. She noted that in future, we will face more challenges of employment creation if issues of TVET are not addressed accordingly and effectively. She observed that what we need, as a country, are policies and programmes that will shape our TVET in line with the skills needs of the industry, and that our strategies should ensure that we build a development-based human resource capital, especially in sectors that prove to be key to our economy, namely: agriculture, mining, tourism, manufacturing, and commerce.

She further noted that one of the essential elements for development in any country is the availability of a highly skilled workforce to drive the private, public, and parastatal sectors of the economy. She emphasised that the country’s human resource development plans - particularly but not only in the TVET sector - should be aggressive, designed to produce people who are innovative and willing to exploit the available resources to generate more jobs and create more wealth. Perhaps the challenge before us now is to concentrate on policy, not only on the education system, but also on the employment system, although this is more complex. She pointed out that SADC countries are faced with a paradox of persistent labour shortages in certain fields, often termed critical areas, in the face of several thousands of youths qualified to undergo training in those fields, noting that although this paradox is discussed at several human resource development forums such as this TVET Pitso, no solutions are ever implemented.

Mrs Ramokoka cautioned that we should desist from blaming unjust colonial practices and tackle any challenges that we face as a country. We need recommendations made from this 2019 TVET Pitso to be implemented and monitored therefore. In addition, she noted that as a country we need baseline information as a timely platform for planning purposes. She outlined the following as issues that need to be addressed by the Pitso:

- a) Policy Coherence
- b) Tackling inefficiency in the TVET system
- c) Quality of TVET
- d) Developing capacity for TVET transformation
- e) Strengthening enterprise-based training
- f) Challenges of some operational definitions and concepts in TVET
Professor Du Pré observed that Botswana’s success masks multiple vulnerabilities, the most striking is the economy dominated by mining and Government services, despite the fact that mining activities employ only 5 percent of the total labour force. This therefore leaves a sizeable number of unemployed. The challenges do emanate from inadequate skills. Despite high levels of primary and secondary educational attainment, still the country has a shortage of skilled labour. He further observed that currently Botswana’s education system is lagging behind as it is neither preparing learners for the knowledge economy (therefore educating only for unemployment), nor for the 4th Industrial Revolution like other developing or developed countries.

He suggested the introduction of a multiple pathways system in the education system which would add an Advanced Certificate (equivalent to Form six) to bridge the current gap in the education system which makes no provision for TVET programmes. He noted that TVET in Botswana has been grossly neglected, and therefore has not been able to respond appropriately to the needs of the labour market. Manual-skilled occupations have a very low status and only the least-academically able students are expected to enrol at TVET institutions. The above issue has led to the problem of a continuous decline in the number of artisans in the country with low-medium-high level skills, as well as inadequate supply of professionals with relevant skills and expertise. The effect thereof has dampened and hampered economic growth and job creation, increased unemployment, and that has led to an increase in the disadvantaged population. He pointed out that in order for the prevailing situation to change the following needs to be done:

a) Improve TVET leadership, particularly at management level;
b) Maximise the use of TVET resources - infrastructure and equipment which is already present;
c) Involve industry and the private sector in providing skills, knowledge, personnel, and workplace opportunities;
d) Provide teacher training for teachers from industry who do not have teaching qualifications; and
e) Provide training for qualified teachers who have no industry experience (pre/in-service teacher training):
   i. Train-the-trainer programmes
   ii. TVET education curricula are needed to be able to support a multiple pathways system in schools.
Mr Golekanye Setume registered a concern that there was a tendency to hold forums such as the current Pitso, but that resolutions and recommendations from such discussions are never implemented. He therefore urged that resolutions from such previous discussions should be implemented. He suggested that at the current Pitso there should be a session that is set aside to review previous resolutions and determine how far they had been implemented.

Mr Setume observed that Botswana’s education had derailed from education with production through TVET programmes to one that produces unemployable graduates who lack skills. He noted that Governments around the world have realised that TVET can uplift their economies. The problem in Botswana was that TVET was not well entrenched in the education system.

Furthermore, Mr Setume pointed out that parents in Botswana advise their children to attend universities rather than TVET institutions, despite the fact that TVET programmes can open up employment opportunities. He noted that top achievers go on to undertake formal education and return home unemployable from tertiary education. He noted that significant questions to address at this Pitso are:

a) How do we position TVET within the education sector?
b) What are some of the best models?
c) Does TVET meet the needs of school leavers?
d) Is TVET accepted by parents?
e) What government systems support TVET?
f) What are the funding models?
g) Are TVET graduates employable?
h) Do TVET graduates create employment?
i) What is the image of TVET in the public?
j) What is the socio-economic impact of TVET?
Dr Matshediso noted that HRDC had identified
the need for key stakeholders to undertake
discourse and build consensus on issues of
imparting TVET, and to map a way forward
regarding the challenges that TVET faces in
Botswana, hence this Pitso. She observed
that TVET is an integral part of Botswana’s
education system and it is pivotal to the
growing economy. She noted that the HDRC
needs assessment (HRDP, 2018) had identified
the following challenges faced by Botswana’s
economy, which could be alleviated through a
properly instituted TVET:

a) Economic - people without jobs;
b) Employment - jobs without people;
c) Education - people with jobs, but without
relevant skills.

She further observed that currently there
are more unskilled workers than there are
knowledgeable workers (HRDP, 2018), but that
the desired scenario is for Botswana to have
more skilled workers. She went to say that
skills gap that have been identified include:

i. Some training is more theory oriented and
lacking in terms of practical skills;
ii. There are not enough internship spaces
at workplaces.In addition, internship duration
and funding are inadequate;
iii. Graduates lack work experience;
iv. Institutions are failing to adjust to the
latest technology, facilities, and equipment;
v. There is shortage of soft skills;
vii. Entrepreneurial skills are inadequate; and
vii. There is a lack of adequate career
guidance.
Dr. Olifile Molwane reiterated the statement made earlier by Mr Gaolekanye Setume that there is a great deal of rhetoric with no implementation. He stated that the conceptualisation of the TVET Policy should be driven by a Transformation Agenda. He further noted that Policies and Strategies on TVET need to be informed by a Situational Analysis and recommendations thereof, and that Local, Regional and Global socio-economic dynamics need to be considered as well. He further pointed out that pedagogies versa vice industry competences need to be assessed to ensure that there is no mismatch between the two. He suggested that the following be used as guidelines for structuring the TVET policy:

a) Why TVET Policy?
b) Mission and Objectives of the Policy;
c) Target groups and Stakeholders;
d) Cross-cutting Issues;
e) Policy Principles and Statements;
f) Policy Implementation;
g) Monitoring and Evaluation of the Policy; and
h) Annexures.
Ms Sabina Gebauer noted that TVET is often seen as a cost, and not an investment. She highlighted that TVET is an investment in human resources. Jointly with investment in new technology, it is an investment in the economic performance, competitiveness, and the future of any country.

The major challenge is that it is difficult to calculate the Return On Investment (ROI) due to lack of data and technical know-how. Her presentation highlighted advantages of investing in TVET such as lowering unemployment rates and social costs. Companies would also benefit from TVET as it results in higher productivity and competitiveness of employees and increases innovative potential and transfer of technology.

Her presentation showed different funding models that can be adopted. She illustrated how funding public TVET systems work, both for public institutions and for private training institutions. TVET has a range of different end users. As beneficiaries of the TVET system, the end users are also expected to contribute to the system, including financially. Therefore, TVET training funds may be sourced from public resources (government budget), companies (levy or tax), and donors (grant or loan). In this way, the Government, companies, and donors contribute to the national training fund for TVET, and training institutions can receive funding through normative funding or ad-hoc fund allocation. Companies would also receive reimbursements from the Government for training their staff, while learners receive loans/grants from the Government for training purposes.
The Human Resource Development Council’s (HRDC) role is to plan and advice on tertiary education financing and work-place learning, and to facilitate financing of skills development through the Human Resource Development Fund (HRDF) and Workplace training and Tertiary Education Student Funding/Student sponsorship. The HRD Fund was established to finance workplace learning, and its purpose is to reimburse levy payers for the costs of training their citizen employees.

The HRD Fund generates money through a levy that is imposed on companies registered for VAT, as per Section 30 of the HRDC Act. The Levy is collected by Botswana Unified Revenue Services (BURS) through the Vat Added Tax (VAT) system, and companies that are liable or are registered for VAT. Funds remaining at the end of the financial year are allocated to organizations such as Small Micro Medium Entrepreneurs (SMMEs) for training cost. While the establishment of the HRD fund has resulted in some significant achievements, there are still challenges that remain to be resolved and these include that:

- a) Current HRD Fund regulatory requirements give priority to Levy Payers and their employees, and hence are not inclusive to the larger economy;
- b) HRDF Reimbursement Model hinders a holistic approach to skills development;
- c) There is low commitment by the industry in training their employees, especially on vocational and technical skills.

Mr Masole noted that there is an important question that still needs to be answered namely, “Given the current reimbursement model, how can the HRD Fund be used to support TVET holistically?”
SUB-THEME TWO: RECOGNITION OF TVET

DIRECTOR, DEPARTMENT OF SKILLS DEVELOPMENT, MELSD

RECOGNITION OF TVET –

Ms Motlalepula Mabisi stated that TVET can be considered as the highest contributor to the economy, even though mining currently leads in sustaining the economy. This is due to the fact that TVET are key players in the mining industry. TVET can also assist in youth empowerment, i.e. self-employment upon completion of training, formation of consortiums – construction trades; an area of training where talent can be nurtured and ultimately realised. She stated that TVET is non-discriminatory and inclusive sub sector. This is because owing to the fact that TVET is not theory-based but is practical. Therefore, even handicapped or disabled people can handle the practical components. Ms Mabisi also reiterated the need to re-tool instructors on the new innovations that address the industry needs.

EU-BOTSWANA COOPERATION “SUPPORT PROGRAMME FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING REFORMS IN BOTSWANA” (11TH EDF) –,

Ms Caetano informed the Pitso that the aim of the Project is to support the Government of Botswana priorities as stated in National Development Plan 11 (NDP 11) and in the country’s Education and Training Sector Strategic Plan (ETSSP 2015-2020). The Project has the overall objective of contributing to unemployment reduction, especially among the youth. In addition, the specific objective of the Project is to increase the availability of TVET graduates including women, men and minority ethnic groups with relevant labour market relevant skills.

Ms Caetano stated that there is currently a move to make TVET attractive. This is done through a communication campaign with the motto ‘Make TVET Cool Again’. The overall objective of this move is to promote TVET as a powerful tool that can change the lives of the citizens and contribute to the economy of the country. This campaign is baled to last for two years (2019 -2021).
Industrial attachment is a prescribed period of hands-on work experience in a relevant industrial setting. The Debswana Apprenticeship Programme is carried out at Orapa Technical College, which was opened in 1972. Focus areas of Orapa Technical College include: Fitting and Machining, Fabrication and Welding, Control and Instrumentation, Automotive, and Electrical and Refrigeration.

Internship is geared towards on-the-job training, wherein students spend more time working practically rather than in a classroom. Industrial attachment is meant to provide practical skills to students, for them to appreciate the work in the industry before being employed full-time after completing their studies. Mr France noted that industrial attachments face challenges including the following:

a) Inadequate industrial attachment places;

b) Attachés attached to companies which do not specialise in their trades;

c) Use of outdated equipment by some of the organizations;

d) Too much time spent by learners in finding industrial attachment placement;

e) Ineffective supervision of attachés by workplace supervisors;

f) Ineffective communication links between the training institution and the industry;

g) Lack of readiness for diversity and inclusion;

h) It would help if attachments were spread throughout the year; currently however, higher institutions of learning send learners out for apprenticeship at the same time, thus making it difficult for all of them to be absorbed.

However, he noted that for an effective industrial attachment programme to exist, it is essential:

i. To have an internal policy/procedure;

ii. For departments to have a structured development plan to ensure skills;

iii. To have a development transfer to attachés, in line with their programme requirements;

iv. To have a structure to ensure proper implementation of the attachment programme and seamless liaison between the organisation and the training institution.
UNESCO stands for United Nations Educational, Scientific and Cultural Organisation. UNESCO seeks to build peace through international cooperation in Education, the Sciences, and Culture. UNESCO’s programmes contribute to the achievement of the Sustainable Development Goals (SDGs) defined in Agenda 2030, adopted by the United Nations (UN) General Assembly in 2015. UNESCO has established regional frameworks related to TVET and these include:

- SADC Protocol on Education and Training;
- Strategic Framework and Programme of Action for Technical and Vocational Education and Training in the Southern African Region;
- African TVET Strategy for Youth Employment;
- Continental Strategy for Technical and Vocational Education.

UNESCO has developed a Strategy for TVET (2016-2021) in alignment with Sustainable Development Goal (SDG Four) and the Education 2030 Framework for Action to strengthen TVET systems of Member States, advance youth employment, access to decent work, entrepreneurship, and lifelong learning opportunities in specific national contexts. The TVET Strategy for 2016 - 2021 has three priority areas:

i. Fostering youth employment and entrepreneurship by providing young people with access to quality skills-training for the world of work and self-employment.
ii. Promoting equity and gender equality through the identification of promising international practices; development of guidelines; and by gender-sensitive evaluations of TVET programmes.
iii. Facilitating the transition to green economies and sustainable societies, strategically incorporating green skills in TVET activities and programmes to address new and necessary approaches to employment, consumption, and production patterns for sustainable development.
Dr Molwane noted that there is no clear definition or practice of internship in Botswana. As such, different institutions and different industries employ different approaches to internship. Thus internships can be; a) a Day Release (e.g. Schools and Tertiary Institutions); b) Weekly Release; c) Block Release (e.g. Minimum Two weeks - Six months or a year/Two semesters) - Gap year; d) Vacation internships; or e) International internship. These can differ further according to whether they are credit bearing or non-credit bearing. Credit bearing internship provides hands-on experience while fulfilling academic pursuits (fulfilling the programme requirements). It ties academic theory to practice (acquisition of relevant technical skills). Assessment is carried out by using journals, essays/reports, presentations based on interns’ experiences. Internships in Botswana face several challenges including the following:

- a) Competition for small and infant market (competition for spaces);
- b) Lack of coordination and buy-in by the industry (ill prepared Interns);
- c) lack of projects;
- d) Benefits for the industry are unclear;
- e) Sponsorship – too much reliance on Department Of Tertiary Education Financing;
- f) Accommodation issues;
- g) No standard developed tools with clear competences;
- h) Differing weightings for the internship programme;

Moving forward, it is important to;

1) create pedagogies and teaching methods which are relevant, current and are informed by industry;
2) reposition programmes of study and develop relevant assessment tools as well as robust internship policies;
3) determine internship models to be adopted and their duration;
4) have new paradigm shifts which include the development of appropriate competencies, skills and attitudes;
5) provide full industry participation, with the industry taking the driving seat and not remaining passive.
According to the International Labour Organisation (ILO), the labour market can be divided into three broad areas of economic activity: 1) Agriculture; 2) Industry and 3) Services – which is made up of: a) Market Services and b) Non-market services. In the past, agriculture controlled the labour market, but services have taken over. For example, in high income countries, agriculture contributes minimally to the economy. In Australia, for example, services account for more than 75 percent of employment. TVET in developed countries is geared towards these changes. Against this background, it is important for African countries, and specifically for us, to be cognisant of the global changes in reference to the labour market when TVET programmes are designed. That is, we need to take note of the fact that services will eventually overtake agriculture, as is apparent in global trends.
Under the new education environment in Botswana, HRDC is mandated to transform education from being supply-driven to that of being demand-driven. For this to be achieved, we need stronger partnerships between industry and TVET Institutions. We need to a) provide a learning experience linking teaching/learning processes with the industry; b) bridge the gap between demand and supply of skilled workforce; and c) enhance employability of the TVET graduates.

Part II HRDC Act No. 17 of 2013 speaks to research and innovation, coordination, promotion and support of industry linked research. HRDC seeks to advance the goals of the Research & Innovation Strategy that was developed in 2011/2012. Six Goals of the HRDC Research & Innovation Strategy are to:

- increase number of research graduates;
- monitor and assure quality of research;
- increase the visibility of the sector's research output;
- optimise the employability of research graduates for labour market;
- optimise the relevance and impact.
- to increase the volume of the sectors research output

However, Botswana faces some challenges in relation to Research and Innovation growth which include:

- low research and development expenditure;
- low expertise and knowledge base;
- low quality of research and output and
- no formal Quality Assurance system exists.

The presenter noted that there is a need to put pressure on TVET institutions to increase the impact and economic outputs from research and innovation. There is a need for a change of mind-set with regards to research to educate researchers to the fact that patented scientific discovery is worth millions of pula. Transforming academic research into tangible products and services is doable but there is need to understand the entire Research and Industry value chain. He further observed that there is a need for TVET to play a key role in the creation of knowledge and skills. To provide an enabling environment for research, there is need to:

- Inculcate the culture of research with impact;
- Provide adequate funding for research;
- Provide incentives for researchers, e.g. 40-70 percent royalties;
- Encourage capacity building to effectively identify, protect, manage and commercialise scientific discoveries.
SUB-THEME FIVE: CONTRIBUTION OF TVET TO THE NATIONAL ECONOMY

TOPIC: POSITIONING TVET FOR EFFECTIVE CONTRIBUTION IN THE NATIONAL ECONOMY, INDUSTRY PERSPECTIVE

Business Botswana (BB) is a Business Association of Employers representing employers in all sectors of the Botswana economy in an advocacy capacity. The organisation has protected the economic interests of the business community through its philosophy of constructive policy dialogue with Government through established structures. Due to its intrinsic interest in the country’s economy, BB is naturally interested in seeing a vibrant TVET programme. According to UNESCO (2001:1-2), TVET is all forms and levels of the educational process involving the study of technologies and related sciences and the acquisition of practical skills, knowhow, attitudes and understanding relating to occupations in the various sectors of economic and social life. Key in this definition is the acquisition of practical knowledge, skills and attitudes in any training offered by TVET providers. It is generally agreed that a modern and responsive TVET system needs to take into account current and expected socio-economic conditions including labour market demand, the needs of both the formal and informal sector in relation to employment, and the professional capacity of TVET teachers and instructors to deliver the system. TVET is a pillar to any successful economy. It serves as an impetus to boost the value of the nation and its GDP in the global marketplace.

Education and Training need to be based on reliable labour market information and demand and employer needs, particularly in priority trades and occupations. A curriculum that strikes a balance between relevance to current demands and flexibility to face the fast changes in the labour market is desirable. What is key for the curriculum to be market-driven and NOT supply driven. Therefore, industry input is key. Another observation is that TVET provision in Botswana is fragmented and spread over different ministries - MOTE and MELSD. Therefore, there is a need for strong system coordination. On the financial aspect, for TVET programmes to become successful, there is need for Government assistance through a continual funding stream.
The Artisan Development Programme (ADP) is geared towards providing a viable training stream for students who are interested in vocational and technical training, especially in the Mining, Energy and Water Resources (MEWR) sector. A Memorandum of Understanding was signed in 2013 between the MoESD and BCM, together with GIZ, in order to implement this ADP. This memorandum affected two training institutions: The Botswana College of Engineering and Technology (BCET) and the Francistown College of Vocational and Technical Education (FCTVE). On the job training is one of the most effective ways to train and develop skills. To ensure high quality on the job training, several methods are used and these include: 1) Task books/log books; 2) Monthly appraisals; 3) Quarterly sectional rotations. One hundred trainees were recruited in 2013 and 95 graduated in 2017 in the following areas:

- a) Heavy Plant;
- b) Fabrication and Welding;
- c) Maintenance Industrial Electrician;
- d) Maintenance Fitter and Machining;
- e) Instrumentation and
- f) Millwright.

The first two trades were trained at Botswana College of Engineering and Technology and the other four at Francistown College of Vocational and Technical Education. Audits performed on the impact of the ADP indicated that the objective of producing job-ready graduates that address the needs of the industry in Botswana’s growing economy has been achieved. Key to the overall success of the programme are strategic alliances with leading Botswana companies where a matching partnership is forged through the Botswana Chamber of Mines (BCM). The companies receiving the students for attachment were happy with the content of the programme, citing that the students’ maturity and aptitude for work are impressive. The ADP project revealed positive feedback regarding the close integration of theory and practice, the immediate reinforcement of learning, and the practical application to real working conditions as a strength of the programme. Moving forward, there is a need to:

- a) Secure long term funding since implementation of TVET is very expensive;
- b) Increase the number of trainers and resources to be able to participate more effectively during the students six Months Industry training;
- c) Involve DTfET/Skills Development in the MMEWR industry training systems for secondment of both trainees and lecturers;
- d) Revamp the DTfET/Skills Development training curriculum with the involvement of the industry;
- e) Establish a long term relationship between the ELP&SD and the MMEWR industry to create linkages of technical cooperation.

**TESTIMONIES**

**TESTIMONY ONE: THE EXPERIENCE OF DEVELOPING A LABOUR MARKET READY GRADUATE**

**MR OKETEFETSE ODISITSE**

**BOTSWANA CHAMBER OF MINES - INDUSTRY**
Ms Tsimakanyane studied Home Economics (HE) at school, and because her mother used to teach her how to sew at home, she excelled in subject at school. She and her mother would make dresses and sell them. At Junior Certificate (JC), she selected Home Economics as a subject of study. Her mother (a single mother who could not read or write), taught herself how to sew with a machine; so she also started learning from the mother how to sew by machine at home.

She did not pursue Home Economics at Junior Secondary school because she was afraid she would not perform well. As a result she could not take Fashion and Fabrics at senior school as she did not have an Home Economics background. Accordingly, she took Design and Technology. Later, she realised that all this was part of God’s plan; that despite not having taken Home Economics at Junior Certificate, she was born for fashion designing.

She applied to Gaborone Technical College (GTC) for fashion design and was admitted, thereafter which she was attached to manufacturing company then that specialises in knitting and designed clothes for different fashion shops. After her certificate level, she could not find employment. Her mentor from Gaborone Technical College later gave her a sewing machine and encouraged her to start making clothes and since then she has never looked back. She currently earns a good living from designing clothes for her customers and clients.
TESTIMONIES (Cont...)

TESTIMONY THREE: SKILLS DEVELOPMENT INITIATIVES: THE CASE OF FCTVE

The Francistown College of Technical and Vocational Education (FCTVE) started skills development training in 2013. At the time, District Councils would request the college to train beneficiaries of poverty eradication to equip them with the necessary skills to start projects that they funded. The college adopted this mode of training and extended it to other equally disadvantaged groups like out of school youth, women and disadvantaged children within the community. The training programmes are offered annually. Each department is expected to identify and offer training to the needy groups.

Training has already been offered in the following areas: Hairdressing, Food Catering, Fashion and Design; Wielding and Electricity, Machine Fitting and Business. To date the college has had some success stories following from trainees who underwent training with the FCTVE college. Kagiso Raditsebe, a Chadibe resident who is a mother of one (daughter), took part in the FCTVE lifelong learning program. Upon completing the programme Ms Raditsebe was funded by the Tonota Sub-District Council under the Nyeletso Lehuma initiative to start a food catering business. Kagiso’s customers are predominantly Government and village individuals. Even though the business is still at pupa level, Ms Raditsebe indicated that the business is developing well despite the challenges she encountered. Boremo Obed was also part of the lifelong learning program studying food catering. She was funded by the City of Francistown Council to start her business. Boremo pointed out that since she established her business, life has improved because she has been able to renovate her house and support her unemployed children.

One of the challenges facing this initiative is that staff consider these initiatives as a burden on them as they already have their long term students’ workload. Additionally, there is some reluctance to assess the impact of these initiatives. Lastly, there are budgetary constraints associated with running these programmes. Going forward, in order to develop our communities, we need to:

a) encourage staff to contribute willingly to the communities they live in;
b) encourage other ETPs and other stakeholders to come on board as their efforts could make a big difference in the lives of our communities; and
c) Look into aspects of funding.
This TVET Pitso has challenged us for action. We have already been informed that through Vision 2036, Botswana acknowledges and embraces a new era to be characterised not only by clear plans, but by deliberate and clear efforts to execute our plans, strategies and initiatives. The success of this Pitso is reliant on all key players in Government, the private sector, industry, civil society groups, parastatals, development partners and international agencies. Throughout this Pitso the speakers emphasised industry involvement in the training of Artisans and Technicians in the country which is crucial for economic diversification. The need for improved relationships between training institutions and industry as represented by employers is of paramount importance. This Pitso therefore, has to have impact. President Thabo Mbeki, once said: ‘Nothing is done until it is done.” There is need for all stakeholders to go out and implement all the resolutions we brainstormed during Pitso.
TVET PITSO OBSERVATIONS

1.) Implementation

Participants repeatedly reiterated exasperation at the lack of implementation of resolutions resulting from discussions such as the TVET Pitso. They pointed out that there was a need to stop talking and get in and implement. They emphasised the wish to see discussions from the current gathering bringing about changes. They categorically requested that all the TVET PITSO must be implemented, but also made pleasant that those from previous Conferences and Seminars must also be implemented. Participants wondered on the possible hinderers and noted that these perhaps eliminates from lack of competencies that could drive implementation of the process resolutions.

Participants also observed that the topics under discussion at the Pitso were not new since they had been discussed before in similar fora. They therefore urged that there was a need to focus on implementation of resolutions from the Pitso and other fora that have previously discussed similar issues. Participants further observed that when resolutions are raised or proposed, there is a need to state which institutions will be responsible for their implementation. In this way HRDC can then follow up and coordinate the execution (Action Plan).

2.) Funding

It was observed that trainers experience funding challenges since the infrastructure required to run TVET programmes, such as purchasing consumables, erecting workshops, etc., is costly.

One participant observed that Botswana has capital/budget to fund TVET, arguing that the seeming lack of availability of funds results from poor prioritisation. For example, HIV received priority in the 1990s while other projects were shelved or pushed back to allow focus on HIV. Given that such prioritisation is possible, TVET should also be similarly prioritised in return. If indeed TVET is a game changer, it needs to be supported with Government funds; there should be no need to rely on donor funds.

3.) Introduction of new TVET Programmes

It was noted that Botswana needs new TVET
programmes, not just building and construction related courses. It was emphasised that there is need to move to technology-based TVET programmes in order to meet the country’s demands and reduce the reliance on imports. Participants noted that the curriculum should also move in this direction. HRDC responded that currently in discussing with institutions to introduce soft skills across all levels of programmes, and also that institutions should introduce or infuse entrepreneurship in their curricular.

4.) Encouraging TVET routes from Primary School Level Participants suggested that TVET should start at primary school level to accord learners to unearth their TVET related passion.

5.) Proper Structuring Of Attachments/Apprenticeships/Internships Participants noted that attachments are not properly organised. They pointed out that currently it is the responsibility of learners to seek a place to go to for attachment, and that sometimes this is unsuccessful. Participants further pointed out that industry should be willing to receive students for attachment, particularly as industry is the ultimate employer.

6.) Making TVET Appeal to the Youth Participants suggested that ways should be found to make TVET appeal to the youth. It was suggested that the only way of achieving this is to structure TVET programmes such that they can result in degree level qualifications, just like in formal education.

7.) Conclusion

The Technical and Vocational Education and Training (TVET) Pitso hosted by HRDC in partnership with the Ministry of Tertiary Education, Research, Science and Technology (MoTE), Ministry of Employment, Labour and Skills Development (MELSD), and UNESCO provided a platform for dialogue with key stakeholders in TVET. Participants charted the way forward on addressing challenges that besiege TVET and also developed interventions to address issues of lack of recognition, inadequate funding, and low absorption of TVET graduates by the labour market. Conference participants unanimously emphasised the need for action and the implementation of resolutions. The Pitso highlighted the undeniable role that TVET plays in contributing to the country’s economy, and also in providing sustainable jobs for the youth.
## Table One: Attachments, Apprenticeship and Internship

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Findings</th>
<th>Recommendations</th>
<th>Responsible Sector/Org/Dept</th>
<th>Timeline</th>
<th>WExpected Outcome</th>
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</thead>
<tbody>
<tr>
<td>Attachments, Apprenticeship and Internship</td>
<td>1) No common definition of Attachments, Apprenticeship, Internship, and Attachments; 2) No standard model that is agreed upon by ETPs; 3) No standardised duration for attachments, Apprenticeship and Internship; 4) No defined competencies for learners on attachments; 5) Lack of meaningful engagement of the learners by industry.</td>
<td>Establish common understanding for all stakeholders; Develop a Standardised Model for Attachments, Apprenticeship and Internship; Standardise attachment, Apprenticeship and Internship duration as per the recommendation of the Society of Cooperatives; Develop tools to assist learners to achieve required competencies; Improve budget the Budget for Attachments, Apprenticeship to ensure improved relationships between industry and ETPs.</td>
<td>HRDC and BQA.</td>
<td>Three Months</td>
<td>Common definition.</td>
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<td>HRDC and BQA.</td>
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<td>Six months</td>
<td>Standardised model for Attachments, Apprenticeship and Internship.</td>
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<td>HRDC and BQA.</td>
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<td>Standardised model for Attachments, Apprenticeship and Internship.</td>
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<td>BQA and ETPs.</td>
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<td>Six months</td>
<td>Tools for attachments, apprenticeship and internship.</td>
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<td>HRDC and relevant Ministries.</td>
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Table Two: Quality and Relevance of TVET to the Labour Market Needs

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<th>Thematic Area</th>
<th>Findings</th>
<th>Recommendations</th>
<th>Responsible Sector/Org/Dept</th>
<th>Timeline</th>
<th>Expected Outcome</th>
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</thead>
<tbody>
<tr>
<td>Quality and Relevance of TVET to the Labour Market Needs</td>
<td><strong>Perception about Quality and Relevance of TVET Programmes</strong></td>
<td>1. Continuous Partnerships/Collaborations between ETP and industry;</td>
<td>1. ETP and Industry;</td>
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<td>1. Quality and Relevant Programmes;</td>
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<td></td>
<td>1) Most Programmes are relevant but have challenges in quality which include the following</td>
<td>2. Capacity building and advocacy of stakeholders on transformation of TVET;</td>
<td>2. MOBE, MOTE, MELSD;</td>
<td></td>
<td>2. Graduates ready for Labour Market.</td>
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<td>a) Theory and Practice do not match;</td>
<td>3. Alignment of Multiple Pathways to TVET;</td>
<td>3. MOBE, MELSD, MOTE;</td>
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<td>b) Graduates lack soft skills;</td>
<td>4. Monitoring standards of programme review to make relevant;</td>
<td>4. BQA;</td>
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<td>c) Programmes are overloaded;</td>
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<td>5. HRDC;</td>
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<td>d) Lack of continuous capacity building of Trainers;</td>
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<td>6. MOTE, MELSD, MOBE</td>
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<td>e) Programmes not regularly reviewed e.g. some reviewed after 22 years (e.g. NCC);</td>
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<td>f) Model of Training;</td>
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<td>g) Assessment Strategies not properly defined;</td>
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<td>h) There is lack of resources (equipment and human resources).</td>
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<td>2) Readiness of the Labour Market</td>
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<td>a) Graduates lack soft skills and practical skills.</td>
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<td>b) Other issues on quality.</td>
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<td>3) Attitudes:</td>
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<td>a) Graduates prioritise money over work.</td>
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<td>4) Compliance of ETP to Quality Assurance</td>
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<td>a) Most Public and Private ETP are registered and accredited;</td>
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<td>b) Slow processing of qualifications;</td>
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<td>c) Programmes have not been started due to slow processing of qualifications.</td>
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**Table Three: Recognition of TVET**

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<tr>
<th>Thematic Area</th>
<th>Findings</th>
<th>Recommendations</th>
<th>Responsible Sector/Org/Dept</th>
<th>Time-line</th>
<th>Expected Outcome</th>
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<tbody>
<tr>
<td><strong>STAKEHOLDER PERCEPTIONS</strong></td>
<td>TVET is:</td>
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<td>a) for students who have not done well academically;</td>
<td>a) Continuous public awareness/education.</td>
<td>3 Ministries; BQA; HRDC; Industry.</td>
<td>Immediatly</td>
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<td>b) inadequately funded;</td>
<td>b) BQA regulations to be enforced.</td>
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<td>c) perceived to be of poor standard/Quality and so are its products;</td>
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<td>d) Mismatch between training and industry needs.</td>
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<td><strong>THE IMAGE OF TVET</strong></td>
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<td>Perceived as inferior</td>
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<td>a) Refer to item 1 ( perceptions);</td>
<td>a) Tailor training to ensure that graduates fit in the market;</td>
<td>Ministries; Industry; HRDC; BQA.</td>
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<td>b) To up entry requirement to TVET;</td>
<td>b) Create employment opportunities;</td>
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<td>c) More mentoring to be done by highly qualified people;</td>
<td>c) Create Regional Exchange programmes.</td>
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<td>d) To train our TVET for export;</td>
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<td>e) Induction courses for TVET graduates.</td>
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<td><strong>EMPLOYMENT OPPORTUNITIES</strong></td>
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<td>a) Available;</td>
<td>a) Infuse soft skills into TVET curriculum;</td>
<td>Institutions; Industry;</td>
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<td>b) Opportunities benefit other nationals;</td>
<td>b) Government should reserve certain jobs for Batswana Artisans through quota system;</td>
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<td>c) graduates lack work ethics;</td>
<td>c) Ensure that ‘trainer of trainers’ are themselves well trained;</td>
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<td>d) Lack marketing skills;</td>
<td>d) Review curriculum to meet current needs;</td>
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<td>e) Competition is high.</td>
<td>e) Programmes to include entrepreneurship, mentorship and relevant attitudes for each occupation;</td>
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<td>f) Ensure that TVET programmes are more practical-based and not theory-based;</td>
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<td>g) Increase salaries of trainers;</td>
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<td>h) Qualify Artisans at the industries where students are attached;</td>
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<td>i) Wadhwani to instil entrepreneurship of TVET;</td>
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<td></td>
<td></td>
<td>j) To have equal sponsorship for all students regardless of whether UB/Brigade;</td>
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<td></td>
<td></td>
<td>k) Embark on Regional benchmarking.</td>
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</tbody>
</table>
Table Four: Positioning TVET for Effective Contribution in the National Economy

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Findings</th>
<th>Recommendations</th>
<th>Responsible Sector/Org/Dept</th>
<th>Timeline</th>
<th>Expected Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positioning TVET for effective contribution in the national economy</td>
<td>1) TVET curriculum is outdated in terms of: a) content; b) resources; c) trainers/academic staff; d) curriculum; development – the curriculum is insufficiently developed across private and public institutions; e) TVET artisans who cannot operate modern industry machinery which requires multi-talented artisans.</td>
<td>Review, revise and update all curriculum as per NHRD demand. Include research into TVET programmes? Advanced teacher capacity building courses at one of the colleges. Infuse soft skills across education and training, starting from primary school level.</td>
<td>ETPs, MELSD, MoTE – PDD, Professional bodies &amp; Industry.</td>
<td>12 months</td>
<td>Modern, current, fit for purpose TVET curriculum.</td>
</tr>
<tr>
<td></td>
<td>2) Inadequate human capital with requisite competencies to deliver economy fit graduates.</td>
<td>Retooling: training of trainers, industry exposure, CPD</td>
<td>MoTE, MoBE, BQA, HRDC, MELSD.</td>
<td>Immediate execution</td>
<td>Rightly qualified, experienced TVET workers across trainers, workers, etc.</td>
</tr>
<tr>
<td></td>
<td>3) Failure of TVET revitalisation strategic /drive.</td>
<td>Approve new TVET Policy and the revitalisation component.</td>
<td>GoB, MoTE, MoBE, BQA, HRDC, MELSD.</td>
<td>Immediate execution</td>
<td>Improved regard for TVET, increasing productivity across</td>
</tr>
<tr>
<td></td>
<td>4) Fragmented or insufficient policy and regulatory compliance.</td>
<td>All TVET institutions must comply with all policies and regulations e.g. BQA’s quality assurance.</td>
<td>MoTE, MoBE, BQA, HRDC, MELSD.</td>
<td>Immediate execution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5) Licensing TVET teachers or trainers to assure quality of delivery (vocation &amp; teaching qualification and industry experience).</td>
<td>Fast track teaching council and enforce teacher registration and licensing like for nurses.</td>
<td>BQA, planned TP Council, Prof Bodies.</td>
<td>Immediate execution</td>
<td>Rightly qualified, skilled personnel.</td>
</tr>
<tr>
<td></td>
<td>6) Students with good High school grades not willing to go into TVET programmes. 7) Poor career guidance, and destructive subject selection; due to staff shortage and capacity.</td>
<td>Promote TVET to be part of general education; Use testimonials in career guidance into TVET; Top achievers for TVET; Implement dual / multiple learning pathways; Forceful implementation of ETSSP.</td>
<td>MoTE, MoBE, Parents, Career Guidance entities, HRDC.</td>
<td>Immediate execution</td>
<td>Top Achievers enrolling into TVET institutions; Equitable treatment of learners in tertiary education (TVET &amp; HE), including allowance parity; Fast track campaign strategy; Sensitise parents against not going into TVET, national awareness; Rigorous quality improvement; Improve administration of TVET schools &amp; rightly skilled personnel.</td>
</tr>
<tr>
<td></td>
<td>8) Lack of platform to develop their talent further e.g. testimony.</td>
<td>Workshop space/ incubators linked to ETPs Support to these; Diversification.</td>
<td>LEA, CEDA, MoTE, MoBE, BITRI, BIUST, MT&amp;I.</td>
<td>Two years</td>
<td>Talented TVET government must collaborate with graduates, industry and manufacturers to innovate and produce.</td>
</tr>
</tbody>
</table>
### Table Five: TVET Funding

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Findings</th>
<th>Recommendations</th>
<th>Responsible Sector/Org/Dept</th>
<th>Timeline</th>
<th>Expected Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVET FUNDING</td>
<td>1. Human resource development fund - employees: Private sector contributing to the fund, Only companies that have contributed benefit from the fund, Threshold set for companies to meet and benefit, All training done for employees, SMME and apprenticeship cost is reimbursed, Formula for reimbursement (companies get more in terms of reimbursement than the training expenses they incur).</td>
<td>1) ADOPT THE GERMAN MODEL THAT WAS PRESENTED, WITH MODIFICATION TO INCLUDE ALUMNI CONTRIBUTION TO TVET FUNDS. a) Consolidate and administer all funds for TVET by one dedicated institution. Such a body could issue out training vouchers to individuals to enable them to acquire training that will enhance their employability and creation of jobs; b) Government should contribute if there is insufficient funding; c) Amendment of the funding Act to include other funds not included in it; d) Enhance governance and coordination of Funding; e) Funds should also be available to finance institutions running, e.g. infrastructure.</td>
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<tr>
<td></td>
<td>2. Tourism Levy - funds employees in the tourism industry.</td>
<td>2) IDENTIFY POTENTIAL PARTNERS FOR EFFECTIVE TVET FUNDING a) Alumni; b) Training Levy inclusive of all companies; c) Parent funding in the form of contribution towards TVET; d) Government; e) Private sector, NGO; f) TVET funding appeal - to stakeholders to fund TVET.</td>
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<td></td>
<td>3. CITF – contractors pay levy, competence levels are funded for contractors (only for contractors).</td>
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<tr>
<td></td>
<td>4. Technical colleges are housed at MELSD.</td>
<td>3) SUSTAINABLE WAYS AND APPROACHES TO TVET FUNDING INCLUDE: a) Revolving fund – pay back into the fund; b) Alumni contributing to TVET funding; c) Deliberate government effort to reserve funding so that budget caters for TVET; d) Consolidate and administer levy as funds for TVET by one dedicated institution; e) Funds should be used for institutional running e.g. for specialized institutions.</td>
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<tr>
<td></td>
<td>5. Department of Tertiary Education funds Form Five leavers.</td>
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</tbody>
</table>

### CHALLENGES WITH CURRENT MODEL

1) Fragmentation of funding sources;
2) Lack of coordination of funds;
3) Inequitable access to fund since it is:
   a) Restricted to levy payers;
   b) Affects levy payers’ cash flow and operation (companies may not have enough cash to train);
   c) Levy Payers pay twice before reimbursement;
4) Citizens are disadvantaged because skills are exported elsewhere due to non-development of local artisans.
## Acknowledgement of NTAC

### NTAC Members

<table>
<thead>
<tr>
<th>Organisation</th>
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</tr>
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<tbody>
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<td>University of Botswana</td>
<td>Dr Andrew Molwane</td>
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</table>
APPENDIX ONE: TVET PITSO PROGRAMME

TECHNICAL AND VOCATIONAL EDUCATION & TRAINING PITSO
THEME: “Nurturing and Managing TVET in a Global and Competitive Economy”
VENUE: PALAPYE | DAY 1: 20 FEBRUARY 2019
DIRECTOR OF CEREMONIES: MR MJ MOGOPA & MR D HULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 8:30</td>
<td>Registration, Arrival of Guests, Welcome tea</td>
<td>Organising committee (NTAC) Local Committee Chief Usher/Ushers</td>
</tr>
<tr>
<td>8:30 – 8:35</td>
<td>Welcome Prayer</td>
<td>Palapye Minister Fraternal - Pastor Sibanda</td>
</tr>
<tr>
<td>8:35 – 8:45</td>
<td>Introduction of VIPs</td>
<td>Director of Ceremonies</td>
</tr>
<tr>
<td>8:45 – 9:00</td>
<td>Welcome Remarks</td>
<td>Chief Executive Officer - HRDC Dr Raphael Dingalo</td>
</tr>
<tr>
<td>9:00 – 9:15</td>
<td>Official Opening: Permanent Secretary Ministry of Tertiary Education, Research, science and technology</td>
<td>Dr Theophilus Mooko, PS MOTE:</td>
</tr>
<tr>
<td>09:15 – 09:30</td>
<td>Address by Permanent Secretary Ministry of Employment, Labour Productivity and Skills Development</td>
<td>Mrs Pearl Ramokoka, PS MELSD</td>
</tr>
<tr>
<td>09:30 – 09:45</td>
<td>Guest Speaker Address by European Union Country Representative</td>
<td>PROF ROY HOWARD DU PRÉ, EUROPEAN UNION</td>
</tr>
<tr>
<td>09:45 – 10:00</td>
<td>Reflections</td>
<td>Mr G. Setume, Botswana Association of Private Tertiary Education Providers (BAPEP)</td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Health break</td>
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<tr>
<td>Time</td>
<td>Session Title</td>
<td>Speaker/Institution</td>
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<tr>
<td>10:30 –</td>
<td><strong>OVERVIEW OF THE TVET PITSO</strong></td>
<td>Dr. Ellah M Matsshediso, Director, HRDP Supply</td>
</tr>
<tr>
<td>10:45 – 11:00</td>
<td><strong>PRESENTATION 1: TVET POLICY</strong></td>
<td>Dr O. Molwane, MOTE - Chairperson – Technical Working Group</td>
</tr>
<tr>
<td>11:00 – 11:15</td>
<td><strong>Presentation 2</strong></td>
<td>Ms Sabina Gebauer - GIZ</td>
</tr>
<tr>
<td>11:15 – 11:25</td>
<td><strong>PRESENTATION 3</strong></td>
<td>Mr Mothusi Masole - HRDF Director -</td>
</tr>
<tr>
<td>11:25 – 11:40</td>
<td><strong>PRESENTATION 4</strong></td>
<td>MELSD</td>
</tr>
<tr>
<td>11:40 – 12:00</td>
<td><strong>PRESENTATION 5</strong></td>
<td>Catarina – EU/Botswana Country Program</td>
</tr>
<tr>
<td>12:00 – 12:45</td>
<td><strong>DISCUSSIONS, COMMENTS, REACTIONS AND SUGGESTIONS</strong></td>
<td>All Participants</td>
</tr>
<tr>
<td>12:45 – 13:45</td>
<td><strong>Lunch</strong></td>
<td>All</td>
</tr>
<tr>
<td>13:45 – 14:00</td>
<td><strong>PRESENTATION 6</strong></td>
<td>Orapa Training Centre</td>
</tr>
<tr>
<td>14:00 – 14:15</td>
<td><strong>PRESENTATION 7</strong></td>
<td>Dr O. Molwane - Deputy Dean, Faculty of Engineering &amp; Technology, UB</td>
</tr>
<tr>
<td>14:15 – 14:30</td>
<td><strong>DISCUSSIONS, COMMENTS, REACTIONS AND SUGGESTIONS</strong></td>
<td>All Participants</td>
</tr>
<tr>
<td>14:30 – 14:45</td>
<td><strong>PRESENTATION 8</strong></td>
<td>BIUST</td>
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<td>14:45 – 15:00</td>
<td><strong>PRESENTATION 9</strong></td>
<td>BAPTEP</td>
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</tbody>
</table>
| 15:00 – 15:20 | **PRESENTATION 10**                                | Director, DSRDI  
Dr Sekambo |

**SUB-THEME 1: TVET FUNDING**

**SUB-THEME 2: RECOGNITION OF TVET**

**SUB-THEME 3: ATTACHMENTS, APPRENTICESHIP & INTERNSHIP**

**SUB-THEME 4: QUALITY AND RELEVANCE OF TVET TO THE LABOUR MARKET NEEDS**
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:20 - 15:40</td>
<td>Discussions, Comments, Reactions and Suggestions</td>
<td>All Participants</td>
</tr>
<tr>
<td>15:00 - 15:15</td>
<td>Afternoon Healthy break. .....Afternoon Healthy break......</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-theme 5: Contribution of TVET Sub-sector in the National Economy</strong></td>
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<tr>
<td>15:30 - 16:00</td>
<td>Discussions, Comments, Reactions and Suggestions</td>
<td>All Participants</td>
</tr>
</tbody>
</table>
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<tr>
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</table>
### APPENDIX THREE: LOCAL ORGANISING COMMITTEE

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact Person</th>
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</thead>
<tbody>
<tr>
<td>HRDC</td>
<td>Kebabonye Molosiwa</td>
</tr>
<tr>
<td>HRDC</td>
<td>Oratile Madisa</td>
</tr>
<tr>
<td>HRDC</td>
<td>Boikhutso Monyaku</td>
</tr>
<tr>
<td>HRDC</td>
<td>Batsalelwang Tladi</td>
</tr>
<tr>
<td>HRDC</td>
<td>Lebotsang Mohutsiwa</td>
</tr>
<tr>
<td>CITF</td>
<td>Diphetogo Hule</td>
</tr>
<tr>
<td>MOTE</td>
<td>Mosetsana Maripe</td>
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<td>HRDC</td>
<td>Modiri J. Mogopa</td>
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</tbody>
</table>
APPENDIX FOUR: THEMES FOR THE BREAKAWAY SESSIONS

Group One: TVET Funding
Group Two: Recognition of TVET
Group Three: Attachments, Apprenticeship and Students internship
Group Four: Quality and Relevance of TVET to labour market needs
Group Five: Positioning TVET for effective contribution in the national economy
APPENDIX FIVE: PROFILES OF PRESENTERS

DR THEOPHILUS MOOKO
PERMANENT SECRETARY, MOTE

Dr. Theophilus Mooko was appointed the Permanent Secretary of the Ministry of Tertiary Education, Research, Science and Technology (MOTE) effective September 1st 2016 to date. Dr Mooko was first appointed in the Executive Management of the public service as Deputy Permanent Secretary, Ministry of Education and Skills Development (MOESD) from 1st March 2009 to December 2012. From January 2013 to November 2014 he served as the Executive Director of Botswana Public Service College (BPSC). Dr Mooko went on to serve at the Directorate of Public Service management (DPSM) as the Deputy Director, from December 2014 to April 2016, and later re-joined the Ministry of Education and Skills Development as Permanent Secretary from May 2016 to 30th September 2016.

Dr Mooko started his career as a Secondary School Teacher in 1986 until he became a Staff Development Fellow at the University of Botswana (UB) in August 1989. In 1991 he was appointed as a Lecturer until 2000 where he was promoted to Senior Lecturer, a position he served on until February 2001. On the 1st of June 2001 to 31st January 2006, Dr Mooko was appointed to Head of Department of Languages and Social Sciences Education until February 2009.

Dr Theophilus Mooko’s academic qualifications include a PHD (Language & Linguistics) from the University of Essex in 1996, MA (Applied Linguistics) from the University of Essex in 1991, Post Graduate Diploma in Education from the University of Botswana in 1986 as well as BA Humanities (English and History) from the University of Botswana in 1985.

Dr Mooko is currently active and serving in the following boards; Vision 2036 Council member, October 2016 to date, University of Botswana (UB) Council, Botswana International University of Science and Technology (BIUST), Institute of Development Management (IDM) and Botswana Public Service Bargaining Council (BPSC). He has also served in the following boards; as the Chairperson of Botswana National Productivity Centre (BNPC) Board and as member of Vision 2016 Council, Botswana Open University Board, Botswana Training Authority, Botswana Botswana National Productivity Centre (BNPC), University of Botswana Council and University of Botswana Senate from 2008 – 2009.
Mrs Pearl Ramokoka is the Permanent Secretary in the Ministry of Employment, Labour Productivity & Skills Development, where her primary roles and responsibilities are to provide strategic direction in labour relations, productivity, vocational skills development and employment of non-citizens. Ensure planning, resourcing, monitoring and evaluating of the performance of the sectors.

She served in various government ministries and departments on various supervisory roles which include the position of Permanent Secretary in the Ministry of Labour and Home Affairs from December 2014 - October 2016. She also had the opportunity to serve in the Ministry of Local Government and Rural Development as the Secretary for Rural Development Council with the responsibility to monitor implementation of the Rural Development Policy, coordinate sectorial structures and responses to rural development agenda. This was after she spent one year working in the private sector as a Director and Senior Consultant.

Mrs Ramokoka has vast experience working for the public service where she held various positions of high responsibility such as being the Director of the Directorate of Public Service Management (DPSM) from 2009 -2010. This was after she served in the same Directorate as Deputy Director for one year. Her elevation to Directorship came after she held different portfolios which included the following; Coordinator - Business Process Re-Engineering(BPR), Chief Management Analyst and Team Leader for Business Process Re-Engineering and Principal Management Analyst.

Mrs Ramokoka’s vast experience includes working for international organisations such as the United Nations Children’s Fund (UNICEF), where she served as the National Officer. She holds a Master of Science in Planning from University of Arizona, Tucson, Arizona, USA, and Bachelor of Arts in Political Science and Public Administration from University of Botswana.

In addition to her current assignment as the Permanent Secretary, she is also a board member of Botswana National Productivity Centre (BNPC) and Special Economic Zones Board(SEZA).
APPENDIX FIVE: PROFILES OF PRESENTERS (Cont...)

**DR RAPHAEL DINGALO**
CEO, HRDC

Dr Raphael Dingalo is the Chief Executive Officer of the Human Resource Development Council (HRDC). He has worked at a number of Organisations that champion human capital development in Botswana, holding various positions including Deputy Permanent Secretary in the Ministry of Education and Skills Development.

Dr Dingalo spent time as Acting Vice Chancellor of Limkokwing University of Creative Technology (LUCT) Botswana and also worked at the University of Botswana, in the Centre for Academic Development (CAD). He holds a professional degree of Doctor in Education (EdD) University of London, UK; a Master in Education (M.Ed) from the University of Manchester’s School of Education, (UK); and a Bachelor of Education (B.Ed) from the College of St Mark and St John (UK).

**PROF ROY HOWARD DU PRÉ**
EUROPEAN UNION

Prof du Pré is a SADC expert in TVET. He drove the formation of Universities of Technology in South Africa in the early 2000s; developed opportunities for learners from Secondary School to attend Technical Colleges and then to proceed to Universities of Technology. He did the same in Mauritius, Zimbabwe and Namibia between 2000 and 2010. He served as specialist advisor (2012-2014) to the Namibia Ministry of Education, Namibia Council on Higher Education, and changing the Polytechnic of Namibia to the Namibia University of Science and Technology. In 2014/15 he served as EU Technical Advisor at HRDC; EU Policy Advisor at Botswana Examinations Council (BEC) in 2015/16, and as EU University Teacher Development Advisor at University of Botswana, 2017/18. He has more than 35 years of experience in education and has been a Vice-Chancellor of two universities of technology. In 2015 he was the recipient of the “Africa Leadership Award”, and the “Leadership Achievement Award” in 2018.
APPENDIX FIVE: PROFILES OF PRESENTERS (Cont...)

MS SABINA GEBAUER
GIZ

Ms Sabina C. Gebauer was born and educated in Berlin, Germany. She holds a Master of Arts (University of Fine Arts Berlin, 1981) and an MBA (Durham University Business School, 2006). She has more than 30 years of progressive work experience as Technical Advisor, Senior Advisor and Programme Director in the fields of TVET, Labour Market and Employment Policies, promotion of SMEs and entrepreneurship in Germany, African countries and countries of the Middle East. She has expertise in TVET, specifically in the fields of developing National Qualifications Frameworks, Curriculum and Assessment development, coordination and cooperation models with the private sector, HRD, TVET financing, and awareness raising for TVET. Expertise in Labour Market and Employment Policies includes Career Guidance and Counselling, Vocational Orientation, Vocational Preparation and Job Matching. She currently holds the position of Head of GIZ Programme “Strengthening Employment-relevant TVET in Botswana II”, Since January 2019.

MR MOTHUSI MASOLE
DIRECTOR DEPARTMENT OF FUNDING, HRDC

Mr Mothusi Masole is the Director of Funding at the Human Resource Development Council (HRDC) and is responsible coordinating the funding mandate of HRDC. He is responsible for ensuring that the department’s vision, work environment, and operations are in line with the overall mission, vision, values, strategies and goals of HRDC and provides expert guidance and advice on issues of funding. He has a Bachelor of Arts degree in Social Sciences (Economics and Accounting) obtained from the University of Botswana (UB); Master of Business Administration (MBA) Degree obtained from the University of Stellenbosch Business School in Cape Town, South Africa, and a Professional Certificate in Education Finance, Economics and Planning obtained from the Witwatersrand University, Republic of South Africa. He has also obtained a CIMA Advanced Diploma in Management Accounting qualification. He is currently studying towards the attainment of a Chartered Institute of Management Accountants (CIMA) professional qualification. He has also attended short courses in the areas of business financial analysis, project management tools and techniques, public speaking, results based monitoring and evaluation techniques, to mention a few. He has a wealth of working experience both in the private sector and public service.
DR OLEFILE MOLWANE
CHAIRPERSON, MOTE TECHNICAL WORKING GROUP

Dr Olefile Bethuel Molwane is a Deputy Dean and a Senior Lecturer at the University of Botswana in the Faculty of Engineering and Technology, Department of Industrial Design and Technology. Dr Molwane has been the Head of Department of Industrial Design and Technology for six (6) years from January 2008 to December 2013 and several other years as Head before joining the University. He has a vast amount of experience in the area of Teacher Education and Design Education.

He has also been involved in the transformation of Technical, Vocational Education and Training in Botswana and has been influential in ETSSP Policy document in regard to TVET. Dr Molwane holds doctorate degree (PhD) from the University of London. He is a researcher as well as experienced in consultancies. He also serves in the Institutional Review Committees of the University as with the Bio-Medical Ethics Committee as a vice-chairman. He is also involved in Quality Assurance in his institution.

DR. ELLAH M. MATSHEDISO
DIRECTOR, HRDP (SUPPLY)-HRDC

Dr Ellah Matshediso is the Director HRD Planning Supply at HRDC. Her roles entails advising and coordinating on institutional planning to tertiary education and training institutions and workplaces on the implementation of the National Human Resource Development Strategy. Specifically, does capacitation, monitoring and evaluation on development and implementation of institutional plans, policies, frameworks towards skills development; student welfare; workplace learning; student internship and apprenticeship.

Dr Matshediso, is a public health specialist, behavioural scientist, and policy advisor with Doctor of Literature and Philosophy in Public Health Studies (D Litt et Phil) from University of South Africa; Master of Public Health degree from the University of Massachusetts, Amherst, USA, and Bachelor of Education in Community Health Education from the University of Toledo, Ohio, USA. Previously, she worked for the Government of Botswana, under Ministry Health &Wellness, Ministry of Local Government & Rural Development, the United Nations Population Fund(UNFPA) and University of Botswana.
MS CATARINA CAETANO
ATTACHE COOPERATION OFFICER EU/BOTSWANA

Catarina Caetano is a Programme Manager at the European Union Delegation to Botswana and SADC since September 2017. She is dealing with bilateral and regional cooperation on Governance and Social sectors. Her portfolio covers the Education and TVET Sector, migration and Institutional capacity building of SADC. She is also the focal point for Research and Innovation, employment and culture. Previously, Ms Caetano was posted in Angola where she was responsible for the Education and TVET portfolio of the EU Delegation, Social Protection, Migration, Gender and Culture.

MR GOLEKANYE SETUME
BUSINESS BOTSWANA

Mr Golekanye Setume holds a Master’s Degree in professional development from Northern College in Scotland. He also holds a Bachelor’s Degree in Secondary Education and Diploma in Secondary Education both majoring in Mathematics. He has a wide experience in education spanning 26 years as a teacher, administrator and policy maker in education spanning. Upon his retirement from public service, he joined the private sector where he is currently serving as a Deputy Pro-Vice Chancellor in one of the leading private tertiary education. He has, since 2013 been chairing the education sector at Business Botswana and has in this capacity, engaged government on policy issues regarding doing business in Botswana.
APPENDIX FIVE: PROFILES OF PRESENTERS (Cont...)

MR BANYATSANG FRANCE
TRAINING AND DEVELOPMENT MANAGER, DEBSWANA

Banyatsang France is a Training and Development Manager for Orapa, Letlhakane and Damtshaa Mines. He oversees the training and development function and manages Orapa Technical College. Previously he was with Botswana Power Corporation as the Training and Development Manager, where he managed the BPC training Schools and the training function of the organisation. He has also worked for other several organisations like the Diamond Trading Company Botswana, BoMaid and BCL Limited.

PROF GOITSEONE MALUMBELA
ASSOCIATE PROFESSOR, BIUST

Professor Goitseone Malumbela has a PhD in Civil Engineering from the University of Cape Town, MSc in Civil Engineering from Wits University, and BSc in Civil Engineering from the University of Missouri Rolla. He is currently Associate Professor and head of the Department of Civil and Environmental Engineering at BIUST. He has previously worked as senior researcher at BITRI and associate professor of structural engineering at UB. Malumbela is a registered professional engineer with ERB.
MATLHOGONOLO MOKAKAPADI
DIRECTOR- DEPARTMENT OF TEACHER TRAINING AND TECHNICAL EDUCATION

Currently he is the Director- Department of Teacher Training and Technical Education, in the Ministry of Tertiary Education, Research, Science and Technology. He holds a Master of Education (Mathematics Education), from the University of Botswana.

He has led and coordinated a number of Education and Training interventions where he had the opportunity to present papers at both local and international forums.

He is a renowned author he has written Mathematics books 1, 2 and 3.
Dr Dingalo shared his personal experience with Technical and Vocational Education and Training (TVET), revealing to the audience that he studied at the then Polytechnic, which is now called the Faculty of Engineering at the University of Botswana (UB). He noted that there is a misconception in the public about TVET. For instance, O ka Nyatsa cartoon in the newspapers also shows this misconception that TVET graduates taking challenges. However, he argued that TVET can boost economic growth and create employment.

Dr Dingalo stated that it was indeed an honor and privilege for him to welcome all participants to the session, making this the modern TVET Pitso. At the onset of his remarks he extended a warm welcome to distinguished resource Persons and experts in TVET from outside Botswana who had kindly agreed to come and share their perspectives and experiences in the area of Technical and Vocational Education and Training (TVET), so that at the end of the day, whatever recommendations the TVET Pitso made would have been drawn from experiences and trends elsewhere. As we are constantly reminded, different approaches to TVET and employment creation are an essential pre-requisite for comparative analysis in order for countries to strive for on-going improvement in their economic performance through the education and training system. Botswana is no exception to this requirement.

A warm welcome was also extended to colleagues from the Ministry of Employment, Labour Productivity and Skills Development and the Ministry of Tertiary Education, Research, Science and Technology and their agencies such as Botswana Institute for Technology Research and Innovation (BITRI), Botswana International University Of Science And Technology( BIUST), and Botswana Examinations Council (BEC), Botswana Qualifications Authority (BQA), Representatives of Captains of Industry and TVET teaching institutions and bilateral partners, UNESCO, European Union, and SADC. Given the various concerns that continue to be raised through consultative structures and various stakeholder consultative forums such as the 2017 Selebi Phikwe-Employment Pitso organised by the Ministry of Employment, Labour Productivity and Skills Development, Dr Dingalo was of the belief that stakeholders had been eagerly looking forward to the Pitso. He noted that participants at the Pitso were of course not the only stakeholders in Technical
and Vocational Education and Training; there are other concerned parties comprising Labour Organisations, GIZ, Botswana Chamber of Mines, to mention a few. All these stakeholders are keen to see a viable TVET Programme that they can effectively link-up with and service their needs. To the representatives from such stakeholders he conveyed a warm welcome and stated that he looked forward to their active participation in the conference.

Dr Dingalo stated that it was an honour to have Ms Catarina Caetano, the Representative of the Delegation of the European Union to the Republic of Botswana and SADC responsible for operations, bilateral and regional cooperation, governance and social sectors, present at the conference. Ms Caetano, despite her tight work schedule, kindly accepted the invitation to the TVET Pitso. He extended a special welcome to Madam Caetano, and expressed his delight that she was in attendance. Ms Caetano played a crucial role in shaping the development and revitalisation of TVET in other SADC countries, and therefore the TVET Pitso organisers felt that they could not identify a more appropriate figure than her to come and share her knowledge and expertise with the audience.

It was the sincere of the organizers that this 2019 TVET Pitso would try to formulate the outlines of appropriate multi-sectorial and coordinated policies and strategies geared towards Technical and Vocational Education and Training and Job creation, as well as try to identify crucial innovations in educational policies and strategies that would coordinate better with new and wider socio-economic approaches, and play their own part in more effective job creation. The selection of speakers also bore this aim in mind. Speakers were invited from outside the country so that participants could learn from international best practice in accelerated job-creation served by revitalized educational practices. As indicated in the seminar brochure, this is the first ever TVET Pitso or Forum, and it has as its main theme as “Nurturing and Managing TVET in a Global & Competitive Economy”. In keeping with past practice from elsewhere, a number of sub-themes have been identified under this overall theme for the purpose of guiding discussions during this august occasion. These sub-themes include, among others, issues such as:

- Recognition of TVET
- TVET Funding
- Attachments, Apprenticeship, and Students internship
- Quality and Relevance of TVET to labour market needs
- Contribution of TVET in the national economy

These are some of the issues that the Pitso is expected to look at critically in the quest for better and quality TVET.

Dr Dingalo thanked the delegates for kindly responding to the call to attend the Pitso. He wished delegate engaging and fruitful discussions.
Dr Mooko shared a personal anecdote on how as a Form one student, in 1976, he designed and made a cow bell at school. Cowbells were rare and expensive at the time. He later made a clothes hanger from timber, and a stool. The anecdote was to emphasize the fact that schools at the time were focused on “education with production”, producing vocational items. Such courses included Building, Construction and Woodwork. At this time Technical and Vocational Education and Training (TVET) was an integral part of the education system. Skills attained from these classes are lifelong, and as such, stay with one for life.

Dr Mooko expressed that he felt honoured to officiate the TVET Pitso. This was an event that sought to promote interaction between TVET stewards towards the transformation of TVET as an education sub-sector that is key to building Human Resource Capital. He noted that TVET can drive the local economy as well as make the economy thrive in a competitive world.

He observed that the theme of the Pitso -“Nurturing and Managing TVET in a Global and Competitive Economy” - was very relevant. We live in a global village and every country must come up with interventions coupled with the appropriate skills to drive its national economy and to find its right seating in the global competitive economy. He said that TVET has proved to be fit for the purpose of developing the right competencies needed by all the sectors building up national economies. The 2030 Agenda for Sustainable Development Goals; Target 4.4, states that: “By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship.” Our National Development Plan 11 (NDP 11), Page 70, speaks to the Revision of curricula across all levels, matching training with industry, re-tooling of skills in areas that have been identified as critical to improve the performance of the economy and increasing the utilisation of ICT. Also, Vision 2036, page 20, says that “Botswana society will be knowledgeable with relevant quality education that is outcome based, with an emphasis on technical and vocational skills as well as academic competencies (education with production).”

UNESCO recommendations concerning TVET speak to TVET as part of lifelong learning, which can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development which may lead to qualifications. The UNESCO recommendations concerning TVET further allude to the fact...
that TVET also includes a wide range of skills development, opportunities attuned to national and local contexts and should embrace the development of literacy and numeracy skills, transversal skills and citizenship skills.

As a country we are signatories to this international agenda because the forum is spot on and is also aligned to national policies and priorities. His Excellency, Dr Eric Keabetswe Mokgweetsi Masisi, has prioritized education and training, and in particular TVET, which he says has the potential to address unemployment as well as assist the country in transitioning to become a high income economy. In view of that, our TVET should answer to the needs of the economy.

HRDC, in collaboration with the two ministries of the Ministry of Employment, Labour, Productivity and Skills Development (MELSD) and the Ministry of Tertiary Education (MOTE), have rightly identified the need to have a platform that brings together all key players at a national coordination level to come up with interventions that will transform the quality of TVET and make it one of the key drivers of the national economy. Indeed, TVET is viewed as a tool for productivity enhancement and poverty reduction in Botswana and across the SADC region. As such, there is an urgent need for stakeholders to enter into dialogue and interrogate TVET opportunities, meet challenges and discover solutions.

The main objective of this TVET Pitso is to promote participation of the industry in TVET reforms, promote the recognition and uptake of TVET by prospective learners and most importantly advocate for quality and relevant TVET to enhance graduates’ employability. Discussions from this forum should result in solutions which will bring change in ameliorating current challenges facing graduates and youth employability.

According to the International Labour Conference in 2004 (ILC, 2004), TVET refers to a range of learning experiences that are relevant for employability, portability of competencies and qualifications and recognition of skills, decent work opportunities and lifelong learning in and related to the world of work. The concept embraces the importance of innovation, competitiveness, productivity and the growth of the economy, considering that innovation creates new employment opportunities and also requires new approaches to education and training which can meet the demand for new skills.

This forum has brought together key partners in TVET, and as key players in TVET, it is a call upon us to transform this sub-sector to become the leading turbine to drive the economy locally and globally. The composition of today’s participants is a true representation of all institutions which discharge TVET and others who have experiences in one way or the other; that is from conventional training institutions, workplaces and other informal training settings as well as the industry which is the ultimate user of our graduates. Let this convention come up with resolute policies and programmes that are capable of shaping TVET to be demand-oriented; a TVET that will equip our youth with requisite skills for Botswana's labour market requirements.

There are indeed challenges that negatively affect the growth of TVET in the global spectrum which include: inadequate TVET funding, low recognition, failure to meet the job market skills needs, low engagement with industry, and inappropriate training and development of TVET trainers and/or teachers.

Funding of TVET remains relatively costly due to its technology-based architecture compared to basic education. The funding remains low and significantly compromised due to shoe-string government budgets. In spite of this, TVET provision continues to gain recognition as one of the key components in economic skills creation. This calls for all key stakeholders to come on board towards creating a positive TVET environment that allows visible involvement of the industry in TVET with regards to financing from the levy system, participation in programmes delivery and assessment. Most importantly, it is imperative that the industry plays an important role in identifying training priorities to inform and guide programme design and
development.

Through this intervention, we will initially build strong Public Private Partnerships (PPP) for the benefit of a revived and efficient national TVET system that will ultimately improve youth employability; these are the two top priorities of the Government of Botswana. At the end of these two days, there should be an action plan drawn from our discussions and this event should set the tone for more action in the area of TVET.

Three key areas that should result from having a strengthened TVET:

• Building a strong Public Private Partnerships (PPP) for the benefit of a revived and efficient national TVET system that will ultimately improve youth employment, two of the Government of Botswana’s priorities.
• The dialogue will come up with findings and recommendations that will shape and refocus our TVET to be demand driven in order to appropriately provide for the skills needed to drive the national economy and improve Botswana’s participation in the global economy.
• Most importantly an Action Plan should be drawn from our discussions, findings and recommendations.

This event should set the tone for more action in the area of TVET.
The Permanent Secretary in the Ministry of Employment, Labour Productivity and Skills Development, Mrs Pearl Ramokoka, indicated that she had accepted the invitation to address the TVET Pitso with enthusiasm because the subject matter is dear to her heart, since TVET is the cornerstone of a growing economy. Her speech proceeded as follows:

A commitment to TVET is a commitment to development, and human resource development is essential for the many developmental tasks that require a trained, skilled and enlightened cadre. The Strategic Framework for the Development of TVET in SADC, the SADC Industrialization Strategy and Roadmap 2015-2063 highlights that ‘skills development is an essential element of industrialization, and countries, amongst others things, should restructure their education system with a focus on technical and vocational skills of all kinds’. SADC is in the process of revising its TVET Strategy and this strategy will be released soon. It has become evident to nations that the prosperity of countries’ economy depends, among other issues, on the effective and efficient utilisation of human resources hence the prioritisation of TVET. Additionally, as a country we are faced with the challenge of unemployment and it is apparent that in future Botswana will face more challenges of employment creation if issues of TVET are not addressed accordingly and effectively.

The theme for this TVET Pitso presents a great challenge for the participants gathered here, as it does for the organisations and companies they represent. The relationship between Technical and Vocational Education and Training on one hand, and employment and development on the other, is complex. There is no simple equation whereby without the right and appropriate competencies our country could automatically take the lead in economic growth and development. Experience has shown that various strategies in TVET and employment attempted in the past, in our country and region, had limited success in providing solutions to dynamic and complex problems.

What we need, as a country, are policies and programmes that will shape our TVET in line with the skills needs of the industry. Our strategies should ensure that we build a development-based human resource capital, especially in sectors that prove to be key to our economy, namely: Agriculture, Mining, Tourism and Manufacturing. These strategies must reconcile, through a dynamic and progressive approach, apparently competing claims on the resources available.

One of the essential elements for development in any country is the availability of a highly skilled workforce to drive the private, public and parastatal sectors of the economy.
Our human resource development plans - particularly but not only in the TVET sub-sector - should be aggressive, designed to produce people who are innovative and willing to exploit the available resources to generate more jobs and create more wealth. Perhaps the challenge before us now is to concentrate on policy, not only on the education system, but also on the employment system, though this is more complex.

There is a paradox that has been persistent in almost all SADC countries since independence - a paradox that is discussed at several human resource development fora such as this TVET Pitso, and it is a permanent feature in our development plans. This is the phenomenon of persistent labour shortages in certain fields, often termed critical areas, in the face of several thousands of youths qualified to undergo training in those fields. How much time do we need to resolve this paradox? Will we forever resort to cursing the unjust colonial practices of the pre-independence era? It is high time we tackle the challenges our economy faces and stop the blame game. We need recommendations made from this 2019 TVET Pitso to be implemented and monitored.

A related question one may ask regarding skills shortages and human resource development plans is the availability of baseline information as a timely platform for planning purposes. Just how recent are our latest figures? Does the scope of our workforce plans and training programmes extend to all the sectors of the economy? These are vital questions to answer if we are to make informed judgements, policies and plans. Perhaps these questions require a multi-disciplinary approach and an integrated approach at all levels of planning.

There are several issues that this 2019 TVET Pitso should address and the organisers of this Pitso should be guided accordingly. Amongst these are:

1) Policy Coherence

TVET is an important sub-sector tool of public interest policy. It can support economic growth and lead to poverty alleviation; facilitate the transition of young people to decent work and adulthood; improve the productivity of existing workers and allow for the re-insertion of the unemployed into work. Part of the challenge of managing TVET is that it is inherently a cross-sectoral issue rather than one that falls easily under one Government department. It is not surprising, therefore, that some institutions and organisations, and ultimately the country, commonly struggle with TVET policy coherence. The issue of fragmentation on the TVET provision remains a major challenge for policy.

2) Tackling inefficiency in the TVET system

There is a persuasive case to be made that Botswana’s TVET system has experienced some reforms. However, primary judgements of the TVET quality and efficiency have to take into account evidence based on the pass rate, throughput and destination rates, related to the unit costs of delivering these outcomes. A true measure of efficiency is not possible in any of the institutions in the absence of robust data on unit costs. Moreover, the data on the key quality measures are limited in both coverage and robustness. Only a few reports, such as Statistics Botswana and HRDC: Tertiary Education Statistics Report at A Glance (2015, 2016 & 2017), show pass rates greater than 75 percent, and pass rates vary worryingly across TVET institutions, programmes and gender. Furthermore, there is an even greater lack of throughput data, which is crucial if systems’ ability to retain learners is to be qualified.

3) Quality of TVET

The quality of TVET learning must be strongly related to the labour market outcomes. The best proxy for this is the destination rates. However, it is striking that there is very little data available to measure this as most of what is available comes from small-scale, once-off tracer surveys, sometimes with excessively broad definitions of employment. The key lesson of the destination data is that inadequate attention is given towards gathering data on destinations across the entire TVET in the country. As institutions and Government, we can no longer afford to defer and delay acting
on this responsibility.

4) **Developing capacity for TVET transformation**

TVET systems are complex and they require considerable capacity in order to function well. However, there are multiple capacity challenges for TVET in our country. Institutional capacity is also limited. The challenge of developing a new model of institutional leadership under conditions of greater autonomy is often raised in some fora and is of vital importance if the reform agenda is to be sustainable. There is little evidence in policy, programmes or data systems that staff development is important across much of the country. It can be assumed that qualification levels, overall, are often low. There are concerns, too, that only a few vocational instructors have a sufficiently strong blend of subject specialist knowledge, industrial experience and pedagogical skills.

5) **Strengthening enterprise-based training**

Although much of the focus on the provision and reforming of TVET is focused on revitalizing public providers and permitting private providers a “level playing field”, there is typically less attention paid to training that takes place in enterprises. Yet it is clear that what already goes on in enterprises could be supported more, as is being attempted by some levy-grant systems. At present, however, very little is known about the quality or extent of enterprise-based training. Furthermore, there is insufficient evidence of how a national TVET system can effectively support and be supported by micro and informal enterprises.

6) **Challenges of some operational definitions and concepts in TVET**

There is a key challenge concerned with the use of some definitions and underlying concepts within the TVET system. Can TVET be replaced by other concepts, such as human resource development or skills development, which are seen in some contexts as being broader notions? It is apparent that there is a pressing need for a better inter-institutional dialogue and understanding of what particular terms mean, even if organisations are to continue with their own preferences. It may also be important to develop a glossary of what is meant by certain terms (e.g. life skills, subject knowledge, and technical skills); a taxonomy of how these relate to each other theoretically; and a theory of how their acquisition/development should be sequenced and structured. Such a discussion would also need to clarify what should be included under the rubric of TVET (or any other preferred term).

From here more remains to be done, and the Government is aware of the need to broaden and diversify the economic base in order to foster employment creation. Therefore, this could just be the start of a long journey for all of us.
REPORT ON THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) PITSO 2019
Professor Du Pré began his address by outlining questions that he feels are crucial to a forum such as this TVET Pitso but also to the country in general:

1) Where is Botswana now, and where is it going?
2) Where is the world now, and where is it going?
3) What does Botswana have to do, and...?
4) What happens if Botswana does not... and...?

His presentation then continued as follows:

We need to prepare for the future as it is arriving faster than we think. Botswana is considered by the UN as an upper-middle-income country. Education is a particular area of success. There is near universal primary education and adult literacy has doubled. Botswana’s success, however, masks multiple vulnerabilities, the most striking of which is an economy dominated by mining and Government services. The revenues derived from diamond mining stifle those of other sectors. However, mining activities employ only 5 percent of the total labour force. Since mining has a limited potential for job creation, and labour-intensive manufacturing has failed to take off due to the lack of a skilled labour force, for a while Botswana has been facing the challenges relating to unemployed graduates. The challenge is not one of illiteracy, but of inadequate skills. Despite high levels of primary and secondary educational attainment the country still has a shortage of skilled labour. Botswana ranks 74th in the Global Competitiveness Report, and this low ranking is attributed to the fact that the country’s poor workforce is slowing down progress towards economic recovery.
The present school outputs and results do not bode well for the future. The failure rate and dropout rate from Junior Certificate (JC) up to Botswana General Certificate of Secondary Education (BGCSE) is alarming and therefore, disturbing. Those who do get to university after BGCSE are still one level short of the National Qualifications Framework NQF level four requirement for admission to year one at university. Essentially such learners then pursue a foundation year to fill this gap. Unemployment is high, and over 50 percent of youth are unemployed. Only one of four graduates were employed in 2015. This has since worsened to around 1:8.

Currently Botswana’s school, TVET and university system are not preparing students for the knowledge economy (educating for unemployment). More alarmingly, however, the talk today is about the 4th Industrial Revolution (4IR) which is upon us - from intelligent robots and self-driving cars to neuro-technological brain enhancements and genetic editing. Botswana still has to come to terms with the knowledge-based economy and the 4IR, in order to take its rightful place.

The multiple pathways proposal suggests adding an Advanced Certificate (equivalent to Form six) to bridge this gap. A three-year TVET stream after JC (Forms 4, 5, 6) will not only provide learners with a qualification on NQF level four, but enable admission directly to first year at university. In addition, such learners will provide the kind of learner that Botswana International University Of Science And Technology (BIUST) was mandated for. Even more importantly, such learners are ideally prepared for the ‘world of work’ (the Real World). This makes them highly employable.
The knowledge economy is the use of knowledge to generate tangible and intangible values. Technology, and in particular, knowledge technology (Artificial Intelligence), help to transform a part of human knowledge to machines. The global economy has moved to a ‘knowledge economy’, as an extension of an ‘information society’ in the ‘information age’ led by innovation. Knowledge resources such as know-how and expertise are as critical as other economic resources.

Knowledge creation and the application of knowledge is central to economic growth in any country today. The world has moved from a resource-based economy to a knowledge-based economy. Knowledge, no longer resources, is the major source of wealth. Nine of the top ten richest individuals in the 21st century gained their wealth from selling knowledge - e.g., Bill Gates (Microsoft), Warren Buffet (Investment), Steve Jobs (Apple), Larry Ellison (Oracle), Carlos Helu (telecoms), etc. (and lately Mark Zuckerberg of Facebook).
Table Six: The Fourth Industrial Revolution

<table>
<thead>
<tr>
<th>Revolution</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Industrial Revolution</td>
<td>1784</td>
<td>Based on Mechanical production equipment driven by Water and Steam power</td>
</tr>
<tr>
<td>2nd Industrial Revolution</td>
<td>1870</td>
<td>Based on Mass Production enabled by the Division of Labour and the use of Electrical Energy</td>
</tr>
<tr>
<td>3rd Industrial Revolution</td>
<td>1969</td>
<td>Based on the use of Electronics and IT to further automate production</td>
</tr>
<tr>
<td>4th Industrial Revolution</td>
<td>TOMORROW</td>
<td>Based on the use of Cyber-physical systems – Robots and Artificial Intelligence</td>
</tr>
</tbody>
</table>

In an effort to go forward and catch up, how does Botswana respond to and address these challenges? TVET is a very strong answer, as can be seen from a number of countries whose strong economies owe much to a skilled workforce. TVET needs to be made attractive, and school-goers and school-leavers incentivized to make it their first choice when they choose programmes of study. One therefore has to begin by focusing on strategies which immediately assist the TVET system in priority areas.

TVET in Botswana has been grossly neglected and therefore has not been able to appropriately respond to the needs of the labour market. Manual-skilled occupations had a very low status and only the least-academically able students were expected to enrol at TVET institutions. The above issue has led to the problem of a continuous decline in the number of artisans in the country with low-medium-high level skills, as well as an inadequate supply of professionals with relevant skills and expertise. The effect thereof has dampened and hampered economic growth and job creation, increased unemployment, and led to an increase in the disadvantaged population.

While the economy continued to experience a serious deficit in technical skills, TVET training institutions remained substantially underutilized. Public and private provision for vocational education has been very weak, many public and private learning centers do not have full-time or properly qualified staff resulting in low enrolments. TVET is being left to private organisations/NGOs: e.g. YAB (Young Africa Botswana). There are insufficient opportunities for workplace experience in order to practice
and hone skills, and where it does take place, it is unstructured and not always beneficial to both student and industry. Staff from industry, whilst highly-skilled, are not trained to teach and assess, and in many instances do not always have qualifications higher than that of the programme being taught. Lecturers from teaching training colleges are trained to teach, but yet they have not worked in the industry, as such they are not able to understand and teach the application of theory. This poses huge challenges for the quality of teaching, quality assurance and assessments.

Action needs to be taken to change the current TVET scenario. This includes:

1) Improving TVET leadership, particularly at management level;
2) Maximising the use of TVET resources - infrastructure and equipment which is already present;
3) Involving industry and the private sector in providing skills, knowledge, personnel and workplace opportunities;
4) Teacher training for teachers from industry who do not have teaching qualifications; and
5) Training for qualified teachers who have no industry experience (pre/in-service teacher training):
   a. Train-the-Trainer programmes
   b. TVET education curricula are needed to be able to support a multiple pathways system in schools

There are many countries which have a successful and efficient TVET education system. Their schools, for example, include TVET courses in the last three years of basic education. Some countries run a dual pathways approach for the last three years of secondary school. TVET then continues beyond school at further education and training colleges/vocational colleges/community colleges/etc., at certificate level (NQF Five) and Diploma level (NQF Six), and universities of applied sciences at Degree level. In other words, Botswana does not need to re-invent the wheel. There are numerous examples which can be adopted/adopted and successfully implemented. For example, South Africa, Australia, Switzerland, Germany, Austria, Ireland, Singapore, Malaysia, Philippines, run very successful TVET programmes across the general education and post-school band. In other words, it can be done and in fact must be done! And if not, why not?

Technical and Vocational Education and Training is a comprehensive term referring to those aspects of the “education or training process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of the economic and social life; it comprises of formal and non-formal approaches.” Technical and vocational education is further understood to be:

1) A means of preparing for occupational fields and for effective participation in the world of work;
2) An aspect of lifelong learning and a preparation for responsible citizenship;
3) An instrument for promoting environmentally sound sustainable development;
4) A method of facilitating poverty alleviation.

AND WHY? TVET provides the foundation for preparing the youth for the Knowledge Economy and 4th Industrial Revolution.

Technical and Vocational Education and Training (TVET) delivery systems have been identified as ‘well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty’. As such, the development of a robust TVET system is important in Botswana’s transformation and diversification agenda. This important role that TVET can play in supporting social and economic development goals is also echoed by the World Bank, African Union, Young Africa International, GIZ, and the UN through one of the MDGs and is reflected in the various “poverty eradication strategies” that have been developed and are now being implemented by inter-Governmental organisations.

The aim is to build employable skills.
A famous advert for a popular alcoholic drink reads: “You can stay as you are for the rest of your life, or you can change to …” Botswana can stay as it is, but as the world goes forward, staying as we are actually means going backward. 70-80 percent of Botswana’s exports are minerals. The quantity of minerals will however, begin to drop in the next decade. Income and exports will then begin to drop. What are we doing then to fill the gap? If we do not fill this void, we will go back to the 19th century economy. The new world order has changed the type of people a country needs to produce. This means that preparing people for change includes helping them to want to be part of change, but that means we too must change. Botswana can no longer afford to allow the present opportunities to slip by. The build-up of under-educated, underqualified, unskilled, unemployed youth is a ticking time-bomb for Botswana.

According to the International Standard Classification of Education (ISCED 1997), Education can generally be divided into three broad levels:

1) First Level Education (basic education) - pre-primary, primary, Adult Basic Education and Training (ABET);
2) Second Level Education (secondary education) - high school and TVET, and
3) Third Level Education (higher education) - post-secondary education, tertiary education, often delivered at universities, academies, colleges, seminaries, and institutes of technology; higher education is also available through college-level institutions, vocational schools, trade schools, and other career colleges that award academic degrees or professional certifications.

What is missing is tertiary education at non-degree level, sometimes referred to as further education or continuing education (which includes TVET), as distinct from higher education, and is essential in preparing for a knowledge economy. To ensure a successful TVET programme in Botswana, the following will need to be attended to urgently, systematically, and structurally:

1) Development of policy guidelines;
2) Development of proper/relevant TVET curricula and programmes;
3) Development of TVET examination and assessment models;
4) Teacher training colleges to prepare teachers for TVET curricula/subjects/learning programmes;
5) In-service training for teachers who will teach TVET programmes;
6) In-service training for teachers from industry who have not been trained as teachers;
7) School management to be prepared for TVET;
8) School infrastructure geared for TVET courses - classrooms/laboratories/equipment;
9) Guidance/counselling/advice provided for potential learners in TVET;
10) Structured programme/process for workplace learning;
11) Accreditation of workplaces for workplace learning;
12) Development of modules for workplace learning;
13) Development of workbooks for learners for workplace learning;
14) Programmes/plans/frameworks for assessment of learners in the workplace.
Mr Setume expressed his appreciation of the thought-provoking presentations that were given especially for the personal anecdotes given by Dr Mooko and Dr Dingalo. These two personal tales showed that TVET was a movement of education with production. He stated that, however, derailed from this movement but that we have the power and strength to retrace our steps in order to attain the knowledge-based economy. This will ensure a return on investment as the country spends millions of Pula on education.

Mr Setume noted that this TVET Pitso is not the first of its kind. There have been similar meetings but that resolutions that have been reached are never implemented. He therefore, urged that previous resolutions be implemented. He observed that we like meetings and Pitso’s but never implement their resolutions and recommendations. Professor Du Pré made the same observation at Boipuso Hall in Gaborone. He suggested that at this Pitso there should be a session that is set aside to review previous resolutions and see how far we are with implementing them. Governments the world over often pronounce the contribution of TVET to their economy. These Governments have realised that TVET can uplift their economies. In Botswana, TVET is a weak link in the education system. He noted that our weakness as a country is that we engage in rhetoric but fail to implement ideas and recommendations that emanate from these deliberations.

Furthermore, Mr Setume pointed out that some parents in Botswana advise their children to attend universities rather than TVET schools. However, TVET can assist with prospects of employability after graduations. He noted that, for example, some students who are considered top achievers and undertake formal education return home unemployed after university - some from the world’s best universities. TVET can create employment. He stated that we need to address some hard questions at this Pitso and hold honest discussions regarding TVET. Some of the questions that need to be addressed are:

1) How do we position TVET within the education sector?
2) What are some of the best models?
3) Does TVET meet the needs of school leavers?
4) Is TVET accepted by parents?
5) What government systems support TVET?
6) What are the funding models?
7) Are TVET graduates employable?
8) Do TVET graduates create employment?
9) What is the image of TVET in the public?
10) What is the socio-economic impact of TVET?

A 2015 study found that only 4.9 percent of educational funding was allocated to TVET. Regarding enrolment, we tend to push learners academics; even those who have obtained grade D are accepted into Form Four - BGCSE.
He further noted that we need to take into consideration staff support, qualifications and morale when discussing TVET issues. It is up to us to change our system to accommodate TVET.
A Pitso is a call to discourse and map a way forward on a given issue. HRDC has identified the need for key stakeholders to undertake discourse and build consensus on issues of imparting TVET and to map a way forward. TVET is an integral part of Botswana’s education system. It is pivotal in a growing economy, hence the need for a TVET supportive environment. However, our TVET is embroiled issues which result in the following questions:

1) Are TVET graduates active in the economy?
2) Are their skills adequate?
3) Do they have soft skills?
4) Do they have entrepreneurial skills?
5) Are their attitudes sufficiently positive?
6) What policies are in place to result in the successful implementation of a TVET programme?

The various aspects mentioned in the questions above are interrelated as shown below:

**Figure Three: Aspects of TVET**
There are existing policies in support of TVET and these include:

1) Vision 2036 which emphasises Prosperity for All -2018;
4) DRAFT National Human Resource Development Plan to 2028;
6) Botswana SDGs and others.

The HDRC needs assessment (HRDP, 2018) has identified the following challenges:

1) Economic – people without jobs;
2) Employment – jobs without people;
3) Education – people with jobs, but without relevant skills.

Currently, there are more unskilled workers than there are knowledgeable workers (HRDP, 2018):

**Figure Four: Old Economy Workers**

**Figure Five: New Economy Workers**

The desired scenario is where there are more skilled workers for the economy as shown above (HRDP, 2018):

Skills gaps that have been identified include the fact that:

a) Some training is more theory oriented and inadequate in terms of practical skills;
b) There are inadequate internship spaces at workplaces. In addition, the internship duration as well as the funding is inadequate;
c) Graduates lack work experience;
d) Institutions are failing to adjust to the latest technology Facilities & Equipment;
e) There is shortage of soft skills;
f) Entrepreneurial skills are inadequate; and

g) There is a lack of adequate career guidance.
Dr. Molwane reiterated the statement made earlier by Mr. Setume that there is a great deal of rhetoric with little action. He stated that the conceptualisation of the TVET Policy should be driven by the Transformation Agenda. Policies and Strategies on TVET need to be informed by a Situational Analysis and recommendations, etc. Local, Regional and Global socio-economic dynamics need to be considered as well, for example, the social mobility and employability of TVET graduates. In addition, pedagogies vs industry competences also need to be considered; for example, training needs have to be practical with less focus on theory.

The development of the National TVET Policy is the result of a series of recommendations from policies and strategies dating as far back as 1993 (Education Commission, RNPE-1994, NAPVET-1997, SFERE Study-2012, ETSSP-2015).

He stated that challenges that face TVET include:

a) Fragmented TVET training;
b) Lack of accountability;
c) Quality deficit;
d) Unemployable TVET graduates;
e) Trainers who lack teaching qualifications and industrial exposure; and
f) Unstructured work-placements.

The TVET Reference Group comprises:
1) MOTE
2) MELSD
3) MOBE
4) HRDC
5) BQA
6) BEC
7) BAPTEP
8) Industry
9) Academic experts in TVET

The proposed structure of the Policy is thus:

1) Why TVET Policy?
2) Mission and Objectives of the Policy;
3) Target groups and Stakeholders;
4) Cross-cutting issues;
5) Policy Principles and Statements;
6) Policy Implementation;
7) Monitoring and Evaluation of the Policy;
8) Annexures.

The draft concept will be shared with stakeholders for discussion, such as with Ministries (e.g., MOBE and MELSD). The final product will be disseminated.
SUBTHEME ONE: TVET FUNDING

MS SABINA GEBAUER
GIZ GLOBAL DEVELOPMENTS & CONCEPTS

TVET is often seen as a cost, not an investment - but it is an investment in human capital resource. When combined with an investment in new technology, it is an investment in the economic performance, competitiveness and the future of a country. The major challenge is that it is difficult to calculate the return on investment due to lack of data and technical know-how.

The benefits of investing in TVET are:

1) For Government:
   a) It lowers unemployment;
   b) It lowers social costs;
   c) It results in higher tax revenues.

2) For Companies:
   a) It results in higher skill level of workers;
   b) Higher productivity and competitiveness;
   c) Increased innovative potential and transfer of technology.

3) For Individuals:
   a) Higher employability, lower risk of unemployment;
   b) Higher wages and career options (e.g. for employment or self-employment).

There are a number of characteristics specific to TVET systems and policies that shape the challenge of financing:

1) **High cost of TVET**
   TVET systems are expensive, mainly because of a combination of equipment costs, the multiplicity of training programmes and the limited enrolment capacity of training courses in order to enable practice.

2) **‘Partnership’ nature of TVET as link between education and the labour market**
   This has two implications as far as a strategic approach to TVET financing is concerned:
   a) TVET has a range of different end users. As beneficiaries of the TVET system, these end users are also expected to contribute to the system, including financially.
   b) At the same time, gathering and analysing financial information - as a starting point for policy making - is difficult: TVET is usually a public policy in which there may be many interactions with, and contributions by, other non-public stakeholders.
3) Multiple ministries with responsibility for training activities

TVET is often provided by different line ministries. This means that systemic reform measures for financing requires substantial coordination between ministries, and therefore, strong political leadership. Having several ministries in charge can also have a negative impact on the availability of financial data because usually there is no single budget line which consolidates all public contributions to TVET.

4) Variety of TVET provision

TVET delivery occurs in different forms, according to different target audiences. This ranges from initial TVET, which is mostly for young learners - through school-based or work-based learning, or a combination of both modalities - to continuing training for employees, and training components of active labour market policies or other social policies for unemployed or vulnerable groups. Each of these forms may be associated with different funding schemes depending on the beneficiaries and the training providers. In theory it is fairly straightforward to track financing flows relating to initial TVET (at least for public providers), whereas for Continuing TVET and for training components of other social policies (active labour market policies, social inclusion policies), it is more complicated, given that not only do the financing flows come from many different sources, but they might also have different destinations (training provision being possibly ensured by companies themselves, non-governmental organisations (NGOs), etc.).

5) Uneven availability of financial data

Shaping evidence-based policy reforms depends on the availability of evidence. From the above reasons this is often difficult because data simply does not exist, or because it has to be processed, unpacked and reconstructed to cover all TVET.

6) TVET financing not limited to how to raise money and how to spend it

Each decision on financing arrangements has consequences for the overall system (e.g. who pays, for what, and how?). In other words, the challenges that financing policy choices are expected to address are how to get the necessary funds, including through increasing state budgets for TVET, and diversifying financing sources (including private sources); how to use them efficiently; and how to ensure that they adequately support policy objectives.

TVET funds have basic features, and these are:

1) What are training funds?
   a) Stock or flow of financing outside the normal government budget;
   b) Purpose: Raising productivity, competitiveness and income levels of companies and individuals through skill creation.

2) Who finances training funds?
   a) Public resources (government budget);
   b) Companies (levy or tax);
   c) Donors (grant or loan).

3) What are the advantages of training funds?
   a) Mobilising resources and sharing training costs;
   b) Involving employers and collaboration among stakeholders;
   c) Quality improvement through accreditation and certification of providers, as well as through demand-led, competitive allocation of funds.

TVET financing parameters include:

a) Resource mobilisation
   Sources, plans, amounts, collection modalities and tools;

b) Resource allocation
   Criteria and tools for distributing and channelling resources;

c) Management of the financing chain
   Governance bodies and mechanisms to make the financing chain operational, to serve policy objectives and to follow clear rules;

d) Costing
   Cost simulation of TVET policy options, key element for decision making; cost estimate of decided policy measures, for planning
purposes;
e) Data
Quantitative and qualitative, financial and non-financial for running of the financing system, monitoring and evaluation of policy implementation and impact.

Financing Public TVET Systems

Public training provision is mostly supply-driven and is not competitive. At the same time, companies often train only skills needed for a specific job, which are not transferable. In consequence, skills do not match demand; there are shortages of well trained, skilled workers which affect productivity, growth, competitiveness and industrial development. At the same time, a parallel training market of private training providers develops and contributes to further fragmentation of the TVET system.

Financing integrated, demand-responsive training markets

The need for a much more flexible and responsive training system has emerged.

In addition to students, trainees and workers are also entitled to further education and training (Lifelong Learning), which make the latter groups beneficiaries. Furthermore, public training providers and private training providers can compete for funding. To encourage formal sector companies to provide more and better training, subsidies are needed. Instead of budget allocations given directly to training providers, students/trainees meet the tuition fees of training institutions through vouchers of entitlement to training courses. Vouchers do not lighten the financing burden falling on the funding body; cost recovery is not part of a voucher. But the voucher system promotes demand-driven training and competition among training providers (both public and private) and a wider choice for trainees. Voucher financing (or similar instruments) has been used mainly for continuing training, training for the unemployed, and for start-ups, micro and small enterprises.

As shown at Figure seven below, under allocation, there is normative funding which is incremental (based on institutional allocations of the previous year). For groups with special needs or from the informal sector, there is contracted training. There is competitive bidding, where tendering is open to private and public providers, and is thus more demand-oriented and cost-conscious in a competitive environment.
Key conditions for Training Fund success are:

1) **Stakeholder ownership**

   All relevant stakeholders should be involved in policy formulation and administration of the training fund to support acceptance and ownership. A substantial board representation of major shareholders, particularly employer groups where training levies are in place, is needed.

2) **Autonomy**

   A training fund should be its own legal entity, to assure long-term stability. Secure decision making autonomy of the management board and its control over budget allocations.

3) **Security of income**

   Ensure adequate, sustainable and stable training fund incomes, from diversified sources.

4) **Allocation of funds exclusively for national training demands**

   The allocation of funds has to be in line with the national training priorities, based on the concerns of all stakeholders.

5) **No operation of own training providers**

   The organisation that is administering the training fund should not operate own training providers or have the responsibility for public training.

6) **Promoting market development**

   Allocating funds to private or public training providers should be based on the principle of competition. Ideally the non-formal sector is included as well.

7) **Target group specific and non-bureaucratic design of programmes**

   The programmes financed by the training fund have to match the demand of the companies or trainees. The procedures for financing and supporting have to be non-bureaucratic.

8) **Decision making processes**

   Decision making processes (especially fund allocation) must be open and transparent.

9) **Regular and solid evaluation**

   Outputs and results of the implementation of a training fund must be observed for evidence-based decision making and necessary adaptions.

**References**


Human Resource Development Council’s role is to coordinate implementation of the NHRDS, plan and advice on tertiary education financing and work-place learning, and to facilitate financing skills development through the following:

1) HRD Fund (Workplace training)
   a) Reimbursement to Employers for training employees;
   b) Funding of Public Tertiary Institutions.

2) Tertiary Education Student Funding/Student sponsorship
   a) Student sponsorship.

The HRD Fund was established through Section 26 of the HRDC Act, 2013 (formerly Vocational Training Fund of 2008) to finance workplace learning. The purpose of the HRD Fund is to reimburse levy payers for the costs of training their citizen employees. Its aim is to increase the quality of work-based training. The governing policies of the HRD Fund are levy order and reimbursement regulations. The Board is responsible for all matters relating to the Fund and through the Funding Committee, they provide guidance to Executive Management.

The Fund generates income through a levy system that is imposed on companies registered for Value Added Tax (VAT), as per Section 30 of the HRDC Act. The Levy is collected by Botswana Unified Revenue Services (BURS) through the VAT system, and companies that are liable or are registered for Value Added Tax (VAT). Such companies must have an annual turnover of at least P1 million.

To qualify to benefit from the training levy, companies must have submitted their VAT returns and paid the levy promptly. Companies benefit by training their employees and claiming for reimbursement of training costs. The reimbursement criteria prescribe that:

a) Training programmes should be accredited, or recognised and undertaken at accredited training providers (including workplaces);

b) Only citizens training costs are claimable, except for special cases where training of non-citizens is approved in advance by HRDC;

c) Prior approval by HRDC is also required for training outside Botswana (External Training);

d) Proof of payment in respect of the costs of training.
Funds remaining at the end of the financial year are allocated to other organizations for reimbursement as follows:

a) Two and half percent for Special Groups;
b) One percent for Emergent industries;
c) Five percent for SMMEs.

At the end of March 2018, achievements were as follows:

a) HRDF level of uptake improved from 15 percent to 20 percent;
b) Turnaround time in processing of claims improved from three months to two-four weeks;
c) More than 100,000 learners benefited from mostly soft skills training and apprenticeship;
d) Establishment of the HRDF Customer Contact centre.

The following contributions towards TVET implementation have been realised:

a) Structured Apprenticeship and internship training by Levy payers is reimbursable from the Fund;
b) From 2014 to date about 12,724 apprentices from different trades were trained;
c) Fourteen (14) workplaces are involved in apprenticeship training to expose them to workplace learning;
d) Out of the fourteen (14) workplaces, eight (8) companies have apprentices from the public technical colleges.

Several contributions are in place towards TVET related internships:

a) One company has a structured internship programme from which 337 interns were trained;
b) Following the amendment of the Vocational Training Fund (VTF) Act in 2012, graduate interns were placed in levy paying organisations for on-the-job training and they benefited by way of monthly allowances and training. An amount in excess of P102 million was utilised;
c) Graduate Interns through the partnership between Anglo America and Botswana benefitted for on-the-job training at Anglo American Company in South Africa where around P2 million was expended.

The following are limitations regarding TVET funding:

a) Current Fund regulatory requirements give priority to Levy payers and their employees, and hence are not inclusive to the larger economy;
b) HRDF Reimbursement model hinders a holistic approach to skills development;
c) There is low commitment by the industry in training their employees, especially on vocational and technical skills.

A question that still requires to be answered is:

“Given the current reimbursement model, how can the Fund be used to support TVET holistically?”
TVET can be considered as the highest contributor to the economy, albeit that we know that mining has been leading. This is because artisans from TVET are key players in the mining industry. TVET can also assist in youth empowerment, i.e. self-employment upon completion of training, formation of consortiums - construction trades; an area of training where talent can be nurtured and ultimately realised. TVET is non-discriminatory and all inclusive. This is because TVET is not theory-based but practical. Therefore, even handicapped or disabled people can undertake the practical components of TVET.

The TVET Curriculum was last reviewed in 1997 (22 years ago). It was found not to be industry focused, and that it does not match the current technology and innovations. As a result, 28 new programmes are under development that address the economic and industrial needs. The new curriculum will be competency-based modular training.

There is a need to re-tool instructors on the new innovations that address the industry needs, i.e., in other fields such as painting and decoration – which include modern technology such as cladding, gamazenith, wallpaper finish, etc.

There is a newly introduced Character Building and Life Skills Programme which is aimed at preparing and capacitating learners on issues that impact social, emotional, psychological, spiritual, physical and economic wellbeing. The programme will also promote work ethics and a culture of work.

In drafting these new programmes, various organisations were identified to collaborate with in order to:

1) Enhance the development of skills and competencies in various disciplines;
2) Address and close skills gaps;
3) Facilitate Industrial attachment;
4) Ensure human resource development (capacity building and skills exchange);
5) Enable research and data sharing;
6) Encourage innovation and the use of new technology;
7) Encourage resource sharing (equipment and donations);
8) Revitalise training with production concept - especially with Government;
9) Equip graduates with relevant business acumen for easy absorption into the labour market.
EU-BOTSWANA COOPERATION “SUPPORT PROGRAMME FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING REFORMS IN BOTSWANA”
11TH EUROPEAN DEVELOPMENT FUND (EDF)

Support Government of Botswana priorities as stated in National Development Plan 11 (NDP 11) and in the country’s Education and Training Sector Strategic Plan (ETSSP 2015-2020)

Contributes directly to the implementation of the “EU-Africa Alliance for sustainable investments and jobs”, which identifies skills development at African level as one of its priority actions.

Table Seven: Synopsis of the Programme

<table>
<thead>
<tr>
<th>Title</th>
<th>Support Programme for Technical and Vocational Education and Training reforms in Botswana, financed under 11th European Development Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>Botswana - the programme shall be carried out nationwide</td>
</tr>
<tr>
<td>Programming</td>
<td>11th EDF National Indicative Programme</td>
</tr>
<tr>
<td>Sector of concentration</td>
<td>Inclusive and sustainable growth / shared prosperity and skills for jobs</td>
</tr>
<tr>
<td>Duration</td>
<td>48 months (2019-2023)</td>
</tr>
<tr>
<td>Amounts concerned</td>
<td>Total estimated cost: €13 000 000 Budget Support: €10 000 000 Complementary support - Technical Assistance: €2 700 000</td>
</tr>
</tbody>
</table>

The Project has the overall objective of contributing to unemployment reduction, especially among the youth. In addition, the specific objective of the Project is to increase the availability of TVET graduates including women, men and minority ethnic groups with labour market relevant skills.

Key result areas (RA) of this Project are:
• RA one: Strengthened governance and accountability of the Education/TVET sector;
• RA two: Improved quality and relevance of TVET Programmes;
• RA three: Provision of gender sensitive work-based learning opportunities.

There are six indicators that have been identified to judge the success of the Project:

1.) ETSSP coordination is institutionalised and operational across the relevant Ministries Objective of the policy: Coordination, management and accountability of the ETSSP;

2.) TVET governance body is institutionalized and operational with participation of relevant public stakeholders and the private sector Objective of the policy: ETSSP Programme One - chapter 5.6: “to attain sole accountability for a quality sub-sector and to have effective governance”;

3.) Status of implementation of the roll-out plan for Multiple pathways Objective of the policy: ETSSP Programme five – chapter 5.3 “to provide alternative learning opportunities for all students”;

4.) Number of in-service trained teachers to deliver Multiple Pathways programmes Objective of the policy: ETSSP Programme four - Chapter 5.4 “develop a strategy for in-service training (INSET) to improve the quality of teaching and learning”;

5.) Number of new learning programmes developed with the participation of the private sector, aligned to the NQF and accredited Objective of the policy: Objective of the policy: ETSSP Programme five – chapter 5.3 “to provide alternative learning opportunities for all students”;

6.) Percentage of women attending the last year of technical training that are following work-based learning in a private company Objective of the policy: ETSSP Programme 5Five- chapter 5.6 “strengthening work based learning”.

Targets for RA1 – Governance and accountability:

a) The inter-ministerial steering committee is officially established;
b) Release of a Joint Annual Education Sector review, with TVET sub-sector included with a gender sensitive approach;
c) Two meetings of the ISC and their reports to the overseeing institution;
d) The model for TVET governance is defined and approved;
e) The costed TVET Policy implementation plan is updated and endorsed;
f) The governance body is fully established and functional.

Targets for RA2 – Quality and Relevance

a) Two schools and 1 brigade rehabilitated and equipped to deliver the programmes (tourism and agriculture);
b) Pathways are rolled out with two programmes (tourism and agriculture) in two schools;
c) The targeted schools have signed MoUs with private sector entities for on-the-job training;
d) The two programmes are extended to three additional schools;
e) Assessment model piloted for the two pilot programmes (tourism and agriculture);
f) Seven Hundred and sixty Five teachers trained in core subjects;
g) Nine Hundred and seventy three teachers trained in multiple pathways learning programmes (technical and professional);
h) Forty Two new learning programmes for multiple pathways (technical and professional).

Targets for RAtthree – Work based learning

a) 75 Percent of women attending the last year of technical training are following work based learning in a private company (measured progressively along three years).

Increased participation of the private sector - TVET Governance
Governance generally refers to a form of steering or regulation. A narrow definition of Governance refers mainly to the steering of processes within the Government. A broader definition focuses on the steering mechanisms in the national, regional and local administration with involvement of stakeholders (private sector/industry, associations, interest groups ...).

The Governance model of reference is a corporate (dual) model of TVET governance, which combines school-based learning with some form of practical learning and it is based on the labour market needs. It has proved to lead to lower youth unemployment. For proper governance, certain conditions need to be put in place. There should be:

- Close cooperation between the Government and the private sector;
- On-the-job/work place learning;
- Societal acceptance of industry standards;
- Training of vocational teachers/trainers;
- Institutionalised research and career guidance.

In June, 2018, the TVET toolbox mission (June 2018) in Botswana recommended that:

- a capable, central “decision making TVET body” (ministries, parastatals, non-governmental and private stakeholders (including industry) should be established;
- an independent advisory board be established;
- the efficiency of parastatal coordination (BEC, BQA, HRDC, Statistics Botswana) be enhanced;
- a result monitoring and evaluation system (availability of disaggregated data) be promoted;
- cooperation between demand and supply (government, industry and training providers) be improved;
- there be regular labour market assessments;
- the reimbursement scheme (training levies) be reformed;
- private companies (SME's) be supported;
- career guidance (job employment centres and build capacities within TVET institutions) be offered.

There is currently an attempt to make TVET attractive. This is done through a communication campaign with the motto ‘Make TVET Cool Again’. The overall objective of this move is to promote TVET as a powerful tool that can change the lives of the citizens and contribute to the economy of the country. This campaign is meant to last for two years (2019-2021). It has a budget of €100,000. The specific objectives of the campaign are to:

- a) provide clear information on the possibilities TVET has to offer;
- b) convey a positive image of TVET which creates enthusiasm and appetite for TVET as a primary option to fulfil one's dreams;
- c) raise awareness and partner with Government institutions on the promotion of TVET.

The campaign offers a valuable opportunity to complement and leverage the Government efforts to move forward the Education/TVET reforms in Botswana. It will also complement the actions taken within the EU-Botswana bilateral programme in support of TVET policies and reforms.

The campaign aims to reach multiple audiences from youth to parents, local communities, Government and the private sector (industry). In addition, the campaign will be creative and utilise various methods: success stories, panel discussions, and interactive theatre performances to attract attention and improve the image of TVET in the country. The outcomes will be aired via television, radio and social media platforms. A community outreach campaign throughout the country is also foreseen.

For further information, please contact:

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EU Delegation to Botswana and SADC

Communication campaign “Make TVET Cool
(again)!

Jelena Mitrovic  jelena.mitrovic@youngafrica.org
Young Africa Botswana
The discussions centred on the following seven areas:

1) Assessment;
2) Funding;
3) Negative attitudes towards blue-collar jobs;
4) Proper structuring of attachments/apprenticeships/internships;
5) Quality of TVET training institutions;
6) Need for institutions to be innovative;
7) Making TVET appeal to the youth.

1) Assessment

Participants noted that despite the fact that assessment is meant to measure the quality of a programme and provide feedback on the success of training, this component was missing from the discussions of the day. They further suggested that Botswana Examinations Council could be consulted for assistance on this matter.

One participant observed that Botswana has capital to fund TVET, arguing that the seeming lack of availability of funds results from poor prioritisation. For example, HIV received priority in the 1990s while other projects were shelved or pushed back to allow focus on HIV. Given that such prioritisation is possible, TVET should also be prioritised in turn. If indeed TVET is a game changer, it needs to be supported with government funds. There is no need to rely on donor funds.

On a related funding matter, some participants noted that companies that train staff who train in TVET programmes get reimbursed by the Government. New Era College, for instance, have trained for companies on travel and tourism, and those companies have been reimbursed.

A concern was raised that a certain percentage of financing gets given to local organisations. A wish was made that this could be extended to private institutions.

2) Funding

It was observed that trainers experience funding challenges since the infrastructure required to run TVET programmes, such as purchasing consumables, erecting workshops, etc., is costly.
3) Negative attitudes towards blue collar jobs

Participants raised a concern that white collar jobs are regarded highly compared to blue collar jobs. They expressed a need for a change of attitudes regarding this matter, and advocated that blue collar jobs should enjoy similar privileges to white collar jobs.

4) Proper structuring of attachments/apprenticeships/internships

Participants noted that attachments are not properly organised. They pointed out that currently it is the responsibility of learners to go around looking for a place to go for an attachment and that sometimes this is unsuccessful. They further pointed out that Industry should be willing to receive learners for attachment, as Industry is the ultimate employer.

5) Quality of TVET training institutions

Participants observed that quality needs to be emphasised in TVET training institutions. They further pointed out that it was important to scrutinise TVET trainers, and to determine if they ever receive refresher courses, given that TVET related technology is dynamic and changes all the time. Participants noted that there are instructors who have been in the field for about 18 years without any additional training.

It was also noted that some training institutions are business oriented rather than quality focused. It was, however, pointed out that in manufacturing there are standards to meet, such as SAMBA, SABS, ISO, etc., and that Training institutions should subscribe to these bodies.

6) Need for institutions to be innovative

Participants observed that University professors from UB, BIUST, New Era, etc. need to come up with innovations in conjunction with their learners to move the country forward towards the 4th Industrial Revolution, and not focus too much on theory.

It was further noted that TVET is important and has to be embedded in our education programmes, even at institutions such as universities.

7) Making TVET appeal to the youth

Participants suggested that ways should be found to make TVET appeal to the youth. It was suggested that the only way of achieving this is to structure TVET programmes such that they can result in Degree level qualifications, just like in formal education.

HRDC informed participants that HRDC has prepared a plan on how the 4th Industrial Revolution can be approached.
Industrial attachment is a prescribed period (about six weeks) of hands-on work experience in a relevant industrial setting. The industrial attachment is meant to provide practical skills to learners and for them to appreciate the work in the industry before being employed full-time after completing their studies. Industrial attachment:

a) helps learners learn essential job skills and develop competencies relevant in their professions;
b) helps learners gain industry knowledge;
c) provides a seamless integration of graduates into the economy;
d) gives learners teachers the opportunity to relate theory to practice;
e) Enables the department to identify problems associated with its curriculum and review it to meet current and future workplace requirements.

For an effective industrial attachment programme to exist, it is essential:

a) to have an internal policy/procedure;
b) for departments to have a structured development plan to ensure skills;
c) to have a development transfer to attachés, in line with their programme requirements;
d) to have a structure to ensure proper implementation of the attachment programme and seamless liaison between the organisation and the training institution.
Table Eight: Implementation structure

<table>
<thead>
<tr>
<th>Programme Coordinator</th>
<th>Coordinator (Internal)</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liaising with the company on matters relating to the request, the requirements and the general conduct and performance of the attaché.</td>
<td>All agreements are signed, ensuring the internship programme is drawn and communicated to all parties.</td>
<td>The attaché performs work in line with the programme.</td>
</tr>
<tr>
<td>Ensures that the programme requirements are met and that necessary records are kept.</td>
<td>The welfare and guidance of the intern for the duration of the programme.</td>
<td>Actively assists the intern to acquire the skills and competencies required for performance of the job.</td>
</tr>
<tr>
<td></td>
<td>Induction of the attaché.</td>
<td>At the end of the service produce an exit report. Conducts all relevant assessments.</td>
</tr>
<tr>
<td></td>
<td>Provide monitoring and evaluation tools, instruments and guidelines as and when necessary.</td>
<td></td>
</tr>
</tbody>
</table>

The table below shows the number of students who have been on attachment at Debswana from different training institutions such as University Of Botswana (UB), Botswana International University Of Science And Technology(BIUST), Botho University, Boitekanelo College, etc.

Table Nine: No of students attached

<table>
<thead>
<tr>
<th>Department</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>21</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td>Human Resource</td>
<td>13</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mineral Processing</td>
<td>7</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Mining</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Safety &amp; Environment</td>
<td>4</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Health Services</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Support Services</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>5</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Ore Processing</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>79</td>
<td>75</td>
</tr>
</tbody>
</table>

These numbers represent less than half of the actual requests for attachment that were received. It would help if these attachments were spread throughout the year. However, as it is, universities or Educational and Training Providers send students for attachment around the same time.
Industrial attachment faces some challenges. Among them are the following:

a) Inadequate industrial attachment places;
b) Attachés attached to companies which do not specialise in their trades;
c) Use of outdated equipment by some of the organisations;
d) Too much time spent by students in finding industrial attachment placement;
e) Ineffective supervision of attachés by workplace supervisors;
f) Ineffective communication links between the training institution and the industry;
g) Lack of readiness for diversity and inclusion.

**Debswana Apprenticeship Programme**


Focus areas include Fitting and Machining, Fabrication and Welding, Control and Instrumentation, Automotive, and Electrical and Refrigeration. Entry requirements into these programmes are:

1) O’level/ BGCSE leavers
   a) Passes in English, Mathematics and sciences;
   b) Age range; 18 to 22 years.
2) Serving employees
   a) O’ Level plus Trade Test B;
   b) The candidate shall not be more than 35 years.

The internship is geared towards on-the-job training, wherein students spend more time working practically rather than in a classroom.

**Figure Eight: Debswana Apprenticeship Delivery method**

![Diagram of 4 Year Programme]

- **Classroom**
  - 3 months

- **Workshop**
  - 3 months

- **On the Job**
  - 6 months

**Assessment**
There are a number of ways in which this apprenticeship is beneficial to employers. These include:

a) Enhancing productivity;
b) The apprentice learns the skills that work best for your business;
c) Apprentices are trained within the context of your organization, meaning that apprentices contribute to business productivity while developing their own skills;
d) Employees develop skills and knowledge that are directly relevant to their jobs;
e) Improving company image;
f) Creating a talent pipeline across organisations;
g) Attracting the best candidates (many enrol for apprenticeship even after getting diplomas from ETPs).

Companies that have trained at Orapa Training College include Komatsu, Tati Nickel, Terex, Botswana Ash, Debswana, etc.
UNESCO stands for the United Nations Educational, Scientific and Cultural Organisation. It seeks to build peace through international cooperation in Education, the Sciences and Culture. UNESCO’s programmes contribute to the achievement of the Sustainable Development Goals defined in Agenda 2030, adopted by the UN General Assembly in 2015.

UNESCO is the only UN agency to have a global network of national cooperating bodies known as National Commissions for UNESCO. National Commissions make part of the overall constitutional architecture of the organization. Set up by their respective Governments in accordance with Article VII of the UNESCO constitution, the National Commissions operate, on a permanent basis, for the purpose of associating their Governmental and Non-Governmental bodies in education, sciences, culture and communication with the work of the organisation. Acting as agencies of consultation, liaison and information, and mobilising and coordinating partnerships with national partners, including the civil society, the National Commissions also make substantial contributions in the advancement of UNESCO’s objectives and in the implementation of its programme.

UNESCO and education:

a) The 2030 Agenda for Sustainable Development is an ambitious, aspirational and universal agenda to wipe out poverty through sustainable development by 2030;

b) When it adopted the new Agenda in September 2015, the international community recognised that education was essential for the success of all 17 of its goals.

The ambitions for education are encapsulated in Sustainable Development Goal Four which aims to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. Through the Incheon Declaration adopted at the World Education Forum in May 2015, UNESCO, as the United Nations’ specialised agency for education, was entrusted leading and coordinating the Education 2030 Agenda together with its partners. The roadmap to achieve the 10 targets of the education goal is the Education 2030 Framework for Action, adopted in November 2015, which provides guidance to Governments and partners on how to turn commitments into action. The main responsibility for implementing the agenda lies with governments, with UNESCO and partners providing support through coordinated policy advice, technical assistance, capacity development, and monitoring of progress at global, regional and national levels.

UNESCO actively helped to frame the Education 2030 Agenda which is encapsulated in SDG Four. The Incheon Declaration, adopted at the World Education Forum in Korea in May 2015,
entrusted UNESCO to lead and coordinate Education 2030 through guidance and technical support within the overall SDG Agenda.

**Figure Nine: SDGs**

A new vision for People, the Planet, Prosperity, Peace and Partnership:

**Figure Ten: A new vision**

**SDG Four:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
Figure Eleven: SDG 4

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Figure Twelve: TVET in SDG agenda/ED2030
Target 4.3: By 2030, to ensure equal access for all women and men to affordable and quality technical, vocational and tertiary (including university) education.

Target 4.4: By 2030, to increase substantially the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship.

Target 4.5: By 2030, to eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including members of the society living with disabilities, indigenous peoples and children living in vulnerable situations.

Table Ten: SDG 4.4106

SDG 4.4: By 2030, to increase substantially the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

<table>
<thead>
<tr>
<th>Contextualized Description</th>
<th>This entails developing an inclusive industry relevant curriculum that can equip youth and adults with relevant entrepreneurial skills to enable them to live sustainable livelihoods. It also involves applying retention strategies to increase programme completion rates through proper monitoring and evaluation of initiatives that target access and implementation of an assessed and time bound compulsory internship programme prior to work placement.</th>
</tr>
</thead>
</table>
| Initiatives | - Identify skills gap of unemployed youth and adults;  
- Design alternative models for research funding;  
- Develop programmes for upgrading of technical and vocational programmes offered at Certificate and Diploma levels in local universities;  
- Apply affirmative action to increase access to technical and vocational skills programmes;  
- Increase funding for technical and vocational skills training;  
- Increase funding for innovation;  
- Build the capacity of technical staff in relevant fields;  
- Implement a policy on multiple pathways. |
Apart from SDG4, 5 more goals have specific education targets:

a) SDG Three: Good Health;
b) SDG Five: Gender Equality;
c) SDG Eight: Decent Work;
d) SDG Twelve: Responsible Consumption and Production;
e) SDG Thirteen: Responsible Consumption and Production.

Indirectly, all the goals are in one way or another linked to Education and Training.

**There are regional frameworks related to TVET:**

1) SADC Protocol on Education and Training (signed in September 1997 and activated in July 2000);
3) African TVET Strategy for Youth Employment [AU:2013];
4) Continental Strategy for Technical and Vocational Education and Training [AU:2016];
5) Revised Regional Indicative Strategic Development Plan (RISDP) 2015-2020;
6) SADC Industrialisation Strategy and Roadmap 2015-2063.

UNESCO has developed a Strategy for TVET (2016-2021) in alignment with Sustainable Development Goal Four and the Education 2030 Framework for Action to strengthen TVET systems of Member States and advance youth employment, access to decent work, entrepreneurship and lifelong learning opportunities in specific national contexts.

The TVET Strategy for 2016 - 2021 has three priority areas:

a) Fostering youth employment and entrepreneurship;
b) Promoting equity and gender equality;
c) Facilitating the transition to green economies and sustainable societies.


UNESCO addresses the issue of growing youth unemployment through TVET by supporting countries by providing young people with access to quality skills training for the world of work and self-employment. In order to ensure a smoother transition between education and the world of work, UNESCO supports cross-sector collaboration and partnerships with the private sector, for relevant incorporation of entrepreneurship skills. Based on the needs and contexts of specific countries, UNESCO supports Member States in reviewing their TVET policies through analysis and alignment of key policy areas. It also supports the development of sustainable TVET financing mechanisms with the view to mobilise resources for the implementation of the TVET Strategy.

Equity and gender equality are promoted in and through policy dialogue and programmes on TVET to ensure that all youth and adults, including vulnerable and disadvantaged groups, have equal access to learning opportunities and skills development. Disadvantaged groups are included in skills development through apprenticeships, quality training in the workplace and in rural communities. UNESCO integrates gender equality in and through national TVET Systems in different ways, such as through identification of promising international practices; development of guidelines; and by gender-sensitive evaluations of TVET programmes.

Climate change calls for an urgent transition to green economies and climate resilient sustainable societies. UNESCO supports a smooth transition to green economies through appropriate strategies, cross-sector synergies and partnerships. It also connects TVET and the other Sustainable Development Goals within priority areas such as health, water, sustainable industrialisation, energy, agriculture, food safety and security. UNESCO strategically incorporates green skills in TVET activities and programmes to address new and necessary approaches to employment, consumption and
production patterns for sustainable development. At the global level, an endeavour to go green is supported by knowledge sharing and peer learning through the UNESCO-UNEVOC network, cooperation with the Inter-Agency Group (IAG-TVET) and other UN organisations.

UNESCO TVET Strategy (2016-2021) supports the efforts of Member States to enhance the relevance of their TVET Systems.

**Figure Thirteen:** UNESCO TVET Strategy (2016-2021)
Shanghai Consensus/Third International Conference on TVET = Transforming Technical Education and Training (building skills for work and life UNESCO 2012) UNESCO’s Member States consider implementing the following actions in response to the challenges identified during the Congress:

a) Enhancing the relevance of TVET;

b) Expanding access and improving quality and equity;

c) Adapting qualifications and developing pathways;

d) Improving the evidence base;

e) Strengthening governance and expanding partnerships;

f) Increasing investment in TVET and diversifying financing;

g) Advocating for TVET;

h) Continental Education Strategy for Africa (CESA 16-25);

i) Revisiting global trends in TVET: Reflections on theory and practice (UNESCO- UNIVOC 2013);

j) UNESCO’s Strategy for Technical and Vocational Education and Training (2016-2021) UNESCO UNIVOC.

High quality TVET programmes are understood to be achieved when there is a link between Education and Training Providers (ETP’s) and workplaces. This kind of cooperative training strategy is taken as a model since it equips trainees with practical training at workplaces and general or theoretical education at training institutions, schools or colleges that are established to provide trainings (UNESCO & ILO, 2002). The nature of TVET training programs usually requires practice or drill as a sole instrument to master the desired skill. As a result, trainees may be guided to observe and practice when assigned at workplaces, enterprises or industries for training. This is a task exercised all the time. Such regular practices eventually enable trainees to demonstrate the approved skill and become skilful personnel (Simeoni, 2005).

Accordingly, quality is a characteristic of a product or the services needed to satisfy customer needs or achieve fitness for use (Hoyle, 2001). Most of the time quality in the TVET System presupposes the presence of certain kinds of approved standards. As a result people apply various techniques and means to ascertain whether these approved standards are met or not. However, setting a quality standard may seem a subjective activity. Thus disagreements are observed among scholars of the TVET System regarding the selection of common quality standards or indicators. Consequently, the issue of selecting common quality indicators in the TVET context is left unresolved at this time. This is due to the fact that some users in the field prefer to apply very few quality indicators while others use a package of indicators. Consequently, each group intends to apply their own mechanisms of checking TVET Quality Systems (Gibb, 2003).

TVET and skills at the centre stage of the 2030 Agenda it becomes necessary to transform, expand and enhance TVET at national, regional and international levels to enable systems to respond to the economic, social, cultural and environmental contexts of the communities and societies they serve.

To respond to new demands, TVET systems should be transformed through Three lenses:

1) Economic;

2) Equity;

3) Transformational.

UNESCO’s work on TVET in Southern Africa:

TVET Projects

1) Better Education for Africa’s Rise (BEAR) (South Korea-Botswana, Malawi, Namibia, Zambia, RDC);

2) Skills and Technical Educational Programme (STEP) (EU-Malawi).

Research

1) Status of TVET in SADC (2013);

2) Situation of National Qualification
Framework (NQF) (2017);

3) Review of TVET Policies.

**Capacity Building**

1) Regional Fora (NQF, TQF; TVET teachers; Regional Framework for Teachers Standards and Competences);
2) Review of TVET Policies.
3) UNEVOC TVET leadership Programme for East and Southern Africa;
4) Support to SADC Secretariat.

UNESCO-UNEVOC undertakes its activities through a worldwide network of UNEVOC centres in more than 165 countries. The UNEVOC Network is the only network of TVET institutions with a global outreach. It links and fosters interaction and learning among diverse institutions of TVET stakeholders around the world. In the area of capacity development, UNESCO-UNEVOC conducts training, consultations and conferences in the different areas of TVET and advocates for global TVET development. UNEVOC’s capacity development programmes take place at different levels and through regional and international cooperation in close collaboration with the UNEVOC Network members. UNESCO-UNEVOC facilitates knowledge sharing through the publishing of TVET related research and its various online communities, including the TVET Forum and the UNEVOC Network Portal.

**References:**

UNESCO. (2002). Legal Texts on National Commissions for UNESCO.
An internship is a partnership between an undergraduate learner and an employer (or Industry) to provide supervised work experience that complements the learner’s academic programme or career goals. Some internships are paid and some are not; for example an unpaid work experience or placement. An employer or sponsor may provide a stipend, which is a fixed allowance to take care of living expenses. Sometimes an employer or sponsor will offer another form of compensation, some examples being reimbursement for mileage or providing lunch rather than paying a wage.

**Internship is performed with a purposeful goal, for example:**

a) Gaining work experience and engagement in the field;

b) Training in the field;

c) Navigating career prospects;

d) Acquisition of interpersonal skills;

e) Exposure to work ethics in the workplace;

f) Networking.

**There are different approaches/modalities to internships:**

a) Day Release (e.g. Schools and Tertiary Institutions);

b) Weekly Release;

c) Block Release (e.g. Minimum two weeks - six months or a year/two semesters) - Gap year (Expand);

d) Vacation internships;

e) International internship.

These can differ further according to whether a student earns credit: Credit bearing or based internships vs non-credit bearing. Credit bearing internship provides hands-on experience while fulfilling academic pursuits (fulfilling the programme requirements). It ties academic theory to practice (acquisition of relevant technical skills). Assessment is carried out by using journals, essays/reports, presentations based on interns’ experiences. In Botswana, internship is offered by some local colleges.

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### Table Eleven: UNESCO TVET Strategy (2016-2021)

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Duration</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brigades</td>
<td>No formal internship</td>
<td>Trade Tests and National Craft Certificate</td>
</tr>
<tr>
<td>Trade Test C Two years</td>
<td>Sometimes engage students through project work (Reduced after Government takeover)</td>
<td>Training period</td>
</tr>
<tr>
<td>Trade Test B One year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCC Three Years</td>
<td>Now informal engagement through maintenance project work. • Architecture six months</td>
<td>Training period • After Second Year, • One full year Institution</td>
</tr>
</tbody>
</table>

### Table Twelve: Public Institutions: Technical Colleges

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Duration</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Colleges</td>
<td>Two months for Certificate programmes</td>
<td>After First Semester • Appreciation of Work Environment</td>
</tr>
<tr>
<td></td>
<td>Six (6) months for Diploma programmes</td>
<td>After year Three (3rd or 4th Semester)</td>
</tr>
<tr>
<td>Apprenticeship Programme</td>
<td>Three months - Institution and Nine months Industry - GVT • 3:3:6 Model (Institute: Theory and practical’s, and Industrial Attachment) - BCM Approach</td>
<td>Annually • Four Year programme</td>
</tr>
</tbody>
</table>

### Table Thirteen: Public Institutions: University of Botswana (UB) and Botswana International University of Science and Technology (BIUST)

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Duration</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Botswana, BIUST, etc.</td>
<td>Industrial Placement One • Eight (8) Weeks • Four (4) Credits</td>
<td>Level 200 and in some cases after Level 300 Winter Break</td>
</tr>
<tr>
<td></td>
<td>Industrial Placement Two • Twenty (20) Weeks • Ten (10) Credits</td>
<td>Second Semester of Level 400</td>
</tr>
</tbody>
</table>
For the UB and BIUST, the purpose of industrial training placement is:

1) To produce work ready graduates;
2) To improve graduates’ employability;
3) To give learner's hands-on experience in order to relate theory to practice;
4) To give learner’s the opportunity to apply their theoretical knowledge in solving real problems by applying their design and analytical skills;
5) To enable learner’s to develop an understanding of an organisation and how it implements its activities;
6) For learner’s to learn more about work ethics;
7) To provide an opportunity for networking with the people in the industry;
8) To provide an opportunity for the industry to identify talents and potential skilled workers;
9) To expose learner’s to opportunities to acquire interpersonal skills through interaction with professionals in the field.

The industrial training performance assessment is based on:

a) Learner’s logbook of daily activities;
b) Learner's Industrial Training Final Report;
c) Industrial Training Supervisor’s report/Company Feedback Report where the students are attached for training;
d) Industrial Training Lecturers report through visit or survey;
e) Oral presentations.

There are challenges and issues of concern in the Botswana experience. These include:

a) Competition for small and infant market (competition for spaces);
b) Lack of coordination and buy-in by the industry (ill prepared Interns);
c) 2008 economic meltdown impact – lack of projects;
d) Benefits for the industry hazy; (uncertain) or ill-defined

Charting the Way Forward

1) Pedagogies (Teaching Methods and Approaches): Pedagogies and teaching methods should:

a) be relevant and current;
b) be informed by industry;
c) be robust and authentic;
d) have a matching rhetoric vs practice.

2) Repositioning of the programmes of study should:

a) Develop relevant Assessment Tools;
b) Develop robust Internship Policies;
c) Have relevant and adequate content – skills development;
d) Be authentic;
e) Be credible.

3) New paradigm shifts, these should:

a) Include development of appropriate competences, skills, attitudes and professional practice;
b) Determine the Models to be adopted and their duration.

For learner’s in Botswana to compete regionally and globally; the internship provision should:

- be engaging and meaningful;
- provide inspiring experiences, personal development and soft skills and be robust;
- provide full industry participation with the industry taking the driving seat and not remaining passive;
- provide sufficient duration;
- Provide employable skills;
- Provide operational policies.

Learning should be made enjoyable, meaningful and fruitful. Learners Students should be able to rejoice after undertaking the learning tasks and projects through internship.
The discussion session centred predominantly on the following Four issues:

1) Apprenticeship;
2) Mind-set change towards TVET programmes;
3) Accreditation of driving schools;
4) Implementation of resolutions.

1) Apprenticeship

Several points were made regarding internship. These include:

a) Relationship between industry and institutions;
b) Over-enrolment by institutions;
c) Funding;
d) Attachment assessment;
e) Cross-border apprenticeship;
f) Allowances for apprentices;
g) Mismatch between apprenticeship and skills acquired during apprenticeship.

What is HRDC and other agencies doing to deliver apprenticeship? There has been a rumour recently that Madirelo Training and Testing Center is closing down. It had massive experience in apprenticeship.

a) Relationship between industry and institutions

Participants pointed out that in order to improve the state of apprenticeship in Botswana, there is a need for the relationship between industry and institutions to be strengthened. It was pointed out that industry too has expectations; that is, industry wishes to benefit from apprenticeship and as such it is important for proper coordination between institutions and industry to ensure that both parties get the best out of apprenticeship. Participants further noted that if properly structured, apprenticeship could operate well and that there would be no need for learners to spend too much time running around
workplaces looking for attachment.

b) **Over-Enrolment by Institutions**

Participants noted that Institutions over-enrol, and when attachment time comes, they cannot find spaces for attachments for their learners since the market is small. Ultimately, some learners end up finishing studies without any practical experience. Participants therefore cautioned that institutions need to be realistic about their enrolment numbers as these should not exceed the available market.

c) **Funding**

The number of learners at Brigades overflow their limited space. Limkokwing University of Creative Technology has a lesson, we can learn from. The programmes have to be more robust. Grace C is not accepted by industry. We need to understand what internship is. There is a need for funding.

d) **Attachment assessment**

TVET programmes need attachment-based assessment. From a regulatory point of view, assessment is emphasised and so there is need for the assessment of internship. A learner needs to satisfy a certain number of hours for internship to get an award. Although the industry is small, and sometimes institutions do not have a place to send their learners, assessment is still key in TVET programmes. Hence it is necessary for greater engagement with the industry.

e) **Cross border internship**

Given that, since there are limited industries in Botswana, we operate within a limited industry, perhaps it is time to explore the possibility of cross-border internship. This is consonant with the idea of promoting the global village. The challenge here is to change learners mind-set and make them realise that they are not equipped with skills to function merely within the geographical space of their own country, but rather to be global citizens.

f) **Allowances for apprentices**

One of the problems of apprenticeship in Botswana is that there is no policy regarding whether apprentices should be given allowance or not. Some companies/organisations offer allowance to apprentices while others do not. Consequently, students tend to do their apprenticeship with those organisations/companies that give some kind of allowance for their services. Such companies/organisations may not necessarily be equipping the students with the relevant skills. A suggestions is that there should be a standard allowance for internship. It was also noted that sometimes learners choose internship based on where they have accommodation, not on what is best suited to their course.

g) **Mismatch between apprenticeship and skills acquired during apprenticeship**

It was noted that presentations made during the day have pointed out that Botswana is training for unemployment. The TVET Pitsos attendees constitute the industry, institutions, and Government. Who is to blame for embarking on education that does not guarantee employment? Is it always industry that influences the need for educating/training? Private Education and Training Providers in the health sector produce programmes that the public sector does not need. Learners go to private clinics for attachment. This shows that institutions are able to lead industry.

On the issue of apprenticeship, HRDC announced that they are currently developing a framework which will provide solutions help attend to concerns raised. HRDC will conduct a study and thereafter will provide numbers and how they impact apprenticeship.

2) **Attitudinal change towards TVET**

It was noted that there was need for a general mind-set change when it comes to TVET programmes. Such mind-set change is required for all parties involved: instructors, learners, parents, and the industry. It is through mind-set achievement that Botswana see success in the uptake of TVET programmes. Currently no parent wants their child to enrol in a TVET programme; parents would rather
their children go through formal education. This is because generally speaking TVET programmes are perceived to be low to learners who did not do perform well in their studies (low achievers). However, given that a country such as Botswana relies heavily on foreign workers for most TVET related skills, it is imperative that there be a serious engagement to change Batswana’s mind-set regarding TVET programmes.

3) Driving schools accreditation

The issue of accreditation of driving schools was raised. Some participants also wanted to find out if anything could be done to raise the skill level of the driving instructors at driving schools as a way of uplifting locals who run these driving schools. It was further pointed out that driving school instructors end up training outside the country.

In response to the above, HRDC pointed out that the registration and accreditation of driving schools was mooted by the department itself, but that qualifications would have to be moved to NCQF and that programmes would then be developed. It was pointed out that this is currently ongoing and that as such, qualifications have not yet been developed. Further, it was pointed out that the standards and necessary support for driving schools would be provided once they are ready.

4) Implementation

Participants repeatedly reiterated exasperation at the lack of implementation of resolutions resulting from discussions such as the current Pitso. They pointed out that there was need to stop talking and embark on implementation. They pointed out there was need to move to new technologies to align with the rest of the world. They emphasised the wish to see discussions from the current gathering bringing about changes. They pleaded that not only should recommendations from the current Pitso be implemented but also those from previous Pitsos and Seminars such as this one.
The labour market, according to the International Labour Organisation (ILO), can be divided into three broad areas of economic activity:

1) **Agriculture** - which consists of three areas:
   a. Agriculture;
   b. Fishing;
   c. Forestry.

2) **Industry** - which consists of:
   a. Mining;
   b. Manufacturing;
   c. Construction.

3) **Services** - which are made up of:
   a. Market Services:
      i. Wholesale and Retail;
      ii. Transportation and Storage;
      iii. Real Estate;
      iv. Accommodation.
   b. Non-market services:
      i. Public Administration;
      ii. Social Services;
      iii. Community Services.

These three areas of economic activity are distributed thus:
In the past, Agriculture controlled the labour market, but Services have taken over. As can be seen in the figure below, Agriculture contributes minimally to high income countries:
In developed countries such as Australia, services account for more than 75 percent of employment:

**Figure Sixteen: Level of Employment in services**

In terms of skilled labour, developed countries lead: over 40 percent of workers have skills, as shown below:

**Figure Seventeen: Level of High skilled employment**
In Asian countries, the labour market is strong in manufacturing:

**Figure Eighteen:** Employment shares by broad sector, Asia and the Pacific, 2000 and 2018 in percentage

In Europe, professionals take a large share of employment:

**Figure Nineteen:** Percentage of Europe people in employment (2017)
There are changes in jobs in the UK, for example loss in Agriculture and gains in Social Work and Human Health. Their TVET interventions are geared towards these changes:

**Figure Twenty**: Changes in number of jobs in United Kingdom 2017-2018

In Australia, Healthcare is also large. Services take a large proportion of the labour market:

**Figure Twenty one**: Employment growth by industry – Australia
The top occupations in Australia are:

**Table Fourteen: Top occupations - Australia**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total Employed - August 2018</th>
<th>Projected employment growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged and Disabled Carers</td>
<td>175,400</td>
<td>69,200</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>281,100</td>
<td>51,400</td>
</tr>
<tr>
<td>Child Carers</td>
<td>147,000</td>
<td>27,600</td>
</tr>
<tr>
<td>Software and Applications Programmes</td>
<td>121,600</td>
<td>25,500</td>
</tr>
<tr>
<td>Waters</td>
<td>132,400</td>
<td>21,800</td>
</tr>
<tr>
<td>Education Aides</td>
<td>94,600</td>
<td>18,800</td>
</tr>
<tr>
<td>Chefs</td>
<td>101,000</td>
<td>16,800</td>
</tr>
<tr>
<td>Primary School Teachers</td>
<td>162,200</td>
<td>16,300</td>
</tr>
<tr>
<td>Advertising, Public Relations and Sales Managers</td>
<td>148,400</td>
<td>14,300</td>
</tr>
<tr>
<td>Bar Attendants and Bartenders</td>
<td>107,300</td>
<td>14,100</td>
</tr>
<tr>
<td>Truck Drivers</td>
<td>203,800</td>
<td>13,800</td>
</tr>
<tr>
<td>Construction Managers</td>
<td>101,900</td>
<td>13,400</td>
</tr>
<tr>
<td>ICT Support Technicians</td>
<td>68,100</td>
<td>12,200</td>
</tr>
<tr>
<td>Welfare, Recreation and Community Arts Workers</td>
<td>34,200</td>
<td>11,800</td>
</tr>
<tr>
<td>Nursing Support and Personal Care Workers</td>
<td>97,100</td>
<td>11,400</td>
</tr>
<tr>
<td>Psychologists</td>
<td>34,100</td>
<td>11,300</td>
</tr>
<tr>
<td>General Clerks</td>
<td>258,000</td>
<td>11,300</td>
</tr>
<tr>
<td>Gardeners</td>
<td>73,100</td>
<td>10,900</td>
</tr>
<tr>
<td>Intelligence and Policy Analysts</td>
<td>28,600</td>
<td>10,700</td>
</tr>
<tr>
<td>Plumbers</td>
<td>93,900</td>
<td>10,500</td>
</tr>
</tbody>
</table>

In the United States of America (USA), Manufacturing is on the decline:

**Figure Twenty Two: Projected percentage change in USA industry 2016-2026**
Conversely, other occupations such as solar installers are on the rise in the USA. TVET programmes can thus be designed to meet these projections:

**Figure Twenty Three**: Fast growing occupations in the USA
This data is important for each country’s TVET design so that they can focus on emerging areas.

In Africa, Agriculture is still dominant. Manufacturing is low - around 20 percent - as shown at Figure Twenty five below:

**Figure Twenty Four:** Fast declining occupations in USA

**Figure Twenty Five:** Fast declining occupations in USA
Against this background, we will miss out on the labour market if we focus on manufacturing. Note that services will eventually overtake Agriculture, as is apparent in global trends. Therefore, we need to keep that in mind as we design our TVET System.

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REPORT ON THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) PITSO 2019

OUR PEOPLE · OUR FUTURE

HUMAN RESOURCE DEVELOPMENT COUNCIL OF BOTSWANA

REPORT ON THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) PITSO 2019
TOPIC: LABOUR MARKET NEEDS AND INDUSTRY LINKED RESEARCH

Under the new education environment in Botswana, the Human Resource Development Council (HRDC) is mandated to transform education from being supply-driven to that of being demand-driven. BQA aligns to the elements developed by HRDC, and BQA develops Levels, Level Descriptors and Standards for Qualifications. CDE sets Curriculum/Learning Programmes for General Education (Levels one - four), and BEC develops National Assessment for existing Curriculum/Learning Programmes. CDE aligns to the elements developed by BQA and BEC aligns to elements developed by CDE. The National Credit & Qualifications Framework (NCQF) is our guide. This framework goes up to PhD level.
### Table 15: NCQF

<table>
<thead>
<tr>
<th>Sub-Frameworks</th>
<th>TVET</th>
<th>Higher Education</th>
<th>Min Credit totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>Doctoral Degree</td>
<td>Doctoral Degree</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree</td>
<td>Master’s Degree</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree(Hons) Post Graduate Diploma Post Graduate Cert.</td>
<td>Bachelor’s Degree(Hons) Post Graduate Diploma Post Graduate Cert.</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree</td>
<td>Bachelor’s Degree</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>Diploma</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>Certificate V</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>Botswana Certificate IV</td>
<td>Certificate IV</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>Botswana Certificate III (BGCSE)</td>
<td>Certificate III</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Botswana Certificate II (JCE)</td>
<td>Certificate II</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Botswana Certificate I (PSLE)</td>
<td>Certificate I</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>
The aim is to realise and maximise our potentials with regard to skills training and development. By 2022, all Batswana will have equitable access to quality skills training and development opportunities. By 2022, Botswana will be famous for its high quality, skilled, well-educated, motivated and productive people.

Indicator

- Skills Training and Development System for those 16 and older, which by 2022 is comparable to that of peer comparator middle income countries.

Stronger Partnership between industry and TVET Institutions – curriculum development, selection of courses, teaching processes, resource persons, assessment and certification – is needed. On the job training, internship and practical work opportunities in industries:

a) Provide a learning experience linking teaching/ learning processes with the industry;

b) Bridge the gap between demand and supply of skilled workforce;

c) Enhance employability of the TVET Graduates.

Part II HRDC Act No. 17 of 2013 Section 4 Subsections (g) (ii) and (h) speak to research and innovation, coordination, promotion and support of industry-linked research. HRDC seeks to advance the goals of the Research & Innovation Strategy that was developed in 2011/2012. Six Goals of the HRDC Research & Innovation Strategy are:

a) Goal One – Increase the volume of the sector’s research output;

b) Goal Two – Increase number of research graduates;

c) Goal Three – Monitor and assure quality of research;

d) Goal Four – Increase the visibility of the sector’s research output;

e) Goal Five – Optimize the employability of research graduates for labour market (economic impact);

f) Goal Six – Optimize the relevance and impact.

Challenges to Research and Innovation growth in Botswana include:

1) Low research and development expenditure - at less than 0.5 percent of Gross Domestic Product (GDP) or SADC recommended over 1 percent of GDP;

2) Low expertise and knowledge base;

3) Quality of research output is low and no formal Quality Assurance system exists.

There is need for understanding and appreciation of the Research & Innovation value chain. Pressure needs to be mounted on TVET institutions to increase the impact and economic outputs from research and innovation. There is a need for TVET to play a key role in the creation of knowledge and skills. The Demola Platform is a brilliant example of concrete cooperation between institutions and industry.

Demola is an open innovation platform. An Open Innovation Platform should:

1) Offer practical experience;

2) Allow for multidisciplinary teams;

3) Engage learners in real challenges;

4) Allow researchers to own the Intellectual Property (IP) rights;

5) Provide a safer environment for institutions.

The following are expected outcomes of the HRDC Research & Innovation Grant Project:

a) To produce cutting-edge research findings that are relevant to the needs of the Botswana's economic and social development;

b) To increase Botswana’s regional and international visibility in research;

c) To create awareness and capacity on the path to technology transfer and commercialisation.

The key successes of the HRDC Research & Innovation Grant Project include:

a) High responses from education and training institutions; they are willing to undertake research;

b) The first edition of the HRDC Research
and Innovation Grant Project funded 16 projects and the second edition has funded 13 research projects to promote uptake and utilisation of research outputs;

(c) Capacity building on technology transfer and commercialisation and appreciation of the complete Research and Industry value chain;

d) Morula Processing Plant: Professor Rapelang Marumo of the University of Botswana and his research team.

To provide an enabling environment we need to:

a) Inculcate the culture of research with impact;

b) Provide adequate funding for research;

c) Provide incentives for researchers, e.g. 40-70 percent royalties;

d) Encourage capacity building to effectively identify, protect, manage and commercialise scientific discoveries.

There is a need for a change of mind-set with regards to research because patented scientific discovery is worth millions of Pulas and it is greatly appealing to potential investors. In addition, the benefits of patenting academic research far exceed a simple notch up the salary scale. Transforming academic research into tangible products and services is doable; the answer lies in understanding the entire Research and Industry value chain.
SUB-THEME FIVE: CONTRIBUTION OF TVET TO THE NATIONAL ECONOMY

TOPIC: POSITIONING TVET FOR EFFECTIVE CONTRIBUTION IN THE NATIONAL ECONOMY, INDUSTRY PERSPECTIVE

Business Botswana (BB) is a Business Association of Employers representing employers in all sectors of the Botswana economy in an advocacy capacity. The organisation was formed in 1971 and registered under the Trade Unions and Employers’ Act No. 23 of 1983. In 1988 the organisation changed to Botswana Confederation of Commerce, Industry and Manpower (BOCCIM) in an effort to embrace Chamber activities due to changes in the business environment. The organisation has protected the economic interests of the business community through its philosophy of constructive policy dialogue with Government through established structures: Sector Level Consultative Council (SLCC) & Higher Level Consultative Council (HLCC).

According to UNESCO (2001:1-2), TVET is all forms and levels of the educational process involving - in addition to general knowledge - the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in the various sectors of economic and social life. Key in this definition is the acquisition of practical knowledge, skills and attitudes in any training offered by TVET providers. It is generally agreed that a modern and responsive TVET System needs to take into account current and expected socio-economic conditions including labour market demand, the needs of both the formal and informal sector in relation to employment, and the professional capacity of TVET teachers and instructors to deliver the system.

The following constitute an effective TVET:

a) Relevance to the labour market (one that meets employer’s needs and expectations);
b) Quality of delivery;
c) Inclusion of soft skills/personal attributes;
d) Funding that is secure and uninterrupted.

TVET is a pillar to any successful economy. It serves as an impetus to boost the value of the nation and its GDP in the global marketplace (the case of Germany: trade surplus & low unemployment especially among the youth). Education and Training need to be based on reliable labour market information and demand and employer needs, particularly in priority trades and occupations. A curriculum
that strikes a balance between relevance to current demands and flexibility to face the fast changes in the labour market is desirable. What is key is for the curriculum to be market-driven and NOT supply-driven (Industry input is key).

**Quality & Relevance will ensured that:**

1) The curriculum emphasises on intensive practical skills;
2) There is constant review of the curricular to address ever changing socio-economic needs;
3) There are highly competent Trainers, Facilitators, Educators (or Assessors) with both theoretical, but more importantly industrial, experience;
4) There are well resourced facilities with up-to-date machinery.

For TVET Systems to become a success, they needs to have Government assistance through a continual funding stream. There is a need for a clear policy on funding TVET as it takes place with higher education. Studies reveal that in developing countries TVET funding is ad hoc and arbitrary; TVET institutions have been neglected or overtaken by institutions that offer traditional academic oriented training.

TVET by nature is capital-intensive. Classes are small and delivered by highly trained and experienced staff in a well-resourced environment. A case in point was the case where the Botswana Government wanted cheap TVET Programmes with a 20,000 intake target. What needs to be done is to deliver quality TVET or to not deliver it at all. TVET can actually be more expensive than higher education provision. Therefore, there is a need for strong system coordination. Currently, TVET provision in Botswana is fragmented and spread over different ministries - MOTE and MELSD.

The global economy demands much more from people than it has in the past. Most if not all employers want to hire employees that possess life skills in areas such as communication, teamwork, motivation, responsibility, timeliness, productivity and reproductive health and violence prevention (work ethics). A study conducted by Inter-American Development Bank (IDB) in 2010 states that, “80 percent of employers in Argentina, Brazil and Chile indicated that positive socio-emotional attitudes or life skills, such as empathy, adaptability, and responsibility among others, are the most difficult capacities to find among workers”.

**The following areas require urgent attention. There is a need for:**

a) Industry to be involved in the formulation of policy, standards and programmes for TVET;
b) Regular and ongoing assessment of labour market industry developments, trends and issues. Occupational analysis is critical in informing the TVET System, i.e. training that meets a hitherto unmet demand;
c) TVET curriculum design and implementation with industry input (BB can assist here);
d) Industry Advisory Forums to be formed;
e) Industry Liaison offices in ETPs;
f) Guest Lectures from industry;
g) Regular review of TVET curricular coupled with continued staff development to boost morale and improve quality delivery;
h) Revamping the image of TVET. The reputation of TVET is poor. In most cases, school-leavers decide to enrol in TVET institutions only if they do not qualify for senior secondary or higher education. This is further exasperated by a lack of clear sponsorship policy for TVET. The system is (by default or design) set to promote academic learning as opposed to skills development. (This could explain why Technical Colleges and Brigades are not operating at optimum learners capacity);
i) Understanding that TVET is skills-based and NOT an Academic pursuit.

**References**


The discussions following the morning presentations revolved around the following nine points:

1) Defining TVET clearly:

Participants noted that there is a misunderstanding of what TVET is. They observed that the definition provided in the presentations include the subject of science, and science implies technology. Therefore the definition of what TVET needs to be made clear. Including science in the definition of TVET has implications as we can produce Engineers and treat them like Artisans.

2) Mismatch between TVET graduates and available spaces in industry:

The number of TVET graduates and the number of jobs available in industry do not tally. Currently we cannot absorb all TVET graduates. This suggests that there is need to re-orient the programmes and focus on Manufacturing. For example, hospitals are in need of syringes, gloves, etc. These could be locally produced. Local Enterprise Authority (LEA) is ready for such business initiatives.

3) The absence of the Ministry of Basic Education (MoBE):

Participants raised a concern on the absence of MoBE at the Pitso, given that this ministry
provides a foundation for Junior Certificate, General Certificate in Education and Higher Education. Participants expected a presentation on (ETSSP) focusing on Education and Training Sector Strategic Plan (2015 – 2020) multiple pathways by MoBE, since multiple pathways education provides the building blocks for TVET.

HRDC posited that they were aware that MoBE is critical, and that they had invited the ministry. However, the ministry had not been able to attend. HRDC further pointed out that the Pitso outcomes would be shared with MoBE.

4) Lack of implementation of resolutions:

It was noted with concern that there is a problem of implementation of resolutions from a forum such as this one, such as the revamping of TVET. Participants wondered whether this lack of implementation was due to a lack of capacity or whether we were not competent enough to implement resolutions.

5) Lack of research impact of higher institutions of learning:

It was observed that Botswana has many universities which have professors and as such they should be able produce research that has impact. However, this is not the case. It was further noted that research which has no impact is of no value and that research with impact and commercialisation value are important to a knowledge-based economy.

The response was given that issues of supply and demand need to be interrogated further. Sometimes the problem is not a matter of quality. The economy requires certain skills to thrive and HRDC should lead from the front by recommending solutions to the Government.

6) Tracking industry needs against graduate skills:

It was observed that it was important to understand the needs of different sectors of the industry. This could be achieved through proper surveys to better understand the scenarios in industry. The findings of these surveys would inform the Government which sectors need skills therefore, train accordingly. It is unfortunate, however, in Botswana they do not have such data.

7) Introduction of new TVET programmes:

It was noted that Botswana needs new TVET programmes, not just Building and Construction; that there is need to move towards technology-based TVET programmes in order to meet the country’s demands and reduce reliance on imports. Participants noted that the curriculum should also move in this direction.

HRDC responded by outlining that they are talking to ETP’s to introduce soft skills across all levels of programmes and also that ETP’s should introduce entrepreneurship in their curricular.

8) Need for improved relationships between industry and higher institutions of learning:

Participants observed that an improved relationship between industry and higher institutions of learning was desirable as this could curb the problem of a mismatch between graduates produced and skills needed by industry. The University of Botswana (UB) was commended for the noble move as it was pointed out that they were on their fourth year of working with industry through a programme called a ‘Skills Audit’. It was suggested that other ETP’s should emulate the approach.

9) International trends:

There was a request to provide clarity on international trends indicating a decline in manufacturing and innovation. In Botswana, is this the way to go? Botswana is currently putting resources into Agriculture. The response was that the economy is intricate; we may put funds into Agriculture without it bearing fruit. The main area of growth is industry – and this may even impact Agriculture.
TESTIMONY FROM THE INDUSTRY,
GRADUATES AND PARTNERS

TESTIMONY ONE: INDUSTRY: THE EXPERIENCE OF DEVELOPING A LABOUR MARKET READY GRADUATE

The Artisan Development Programme (ADP) is geared towards providing a viable training stream for those who are interested in Vocational and Technical Training, especially in the Mining, Energy and Water Resources Sector. A Memorandum of Understanding (MoU) was signed in 2013 between the then Ministry of Education, Skills and Development MoESD and BCM, together with GIZ, in order to implement this ADP. This memorandum affected two training institutions: the Botswana College of Engineering and Technology (BCET) (for two vocational programmes) and the Francistown College of Vocational and Technical Education (FCTVE) (for four vocational trades).

GIZ in this partnership provided technical trainers for the six trades. GIZ’s purpose is to promote international cooperation for sustainable development and international education work. All stakeholders are responsible for the development of Programmes by Curriculum Development Groups. Registration and accreditation of Programmes is done by Department of Technical Vocational Education and Training (DTVET) and BCM.

Entrance requirements for apprentices:
1) Levels with minimum of C in Maths, C in Science, D in English;
2) Psychometric assessment;
3) Oral interview conducted by trade specialist;
4) Medical Examination procedure;

Competency-Based modular training modules cover the following areas:

a) Risk Management: - Health and Safety Procedures;
b) First Aid Training and Certificate issued by Botswana Red Cross;
c) Personal Protective Equipment provided as per host company specifications;
d) Individual relevant Toolboxes provided by BCM;
e) Group insurance cover and Medical Aid Cover subs;
f) Trainees are also equipped with business orientation skills.

On the job training is one of the most effective ways to train and develop skills. This type of On-the-Job Training/Attachment is most effective because the trainee learns and develops the skill(s) under actual working conditions while training under an experienced On-the-Job
(OJT) trainer. This kind of training does not deal with concepts and theories; the trainee learns and develops actual skills on the job.

**Technical support staff involved include:**

1) **Management** – program support (release supervisor when necessary);
2) **Mentor/Coach** – Allocate tasks, supervises, gives guidance & discipline;
3) **On-the-job Training Officer** – Guidance, ensures jobs/tasks are in line with learner development, the learner is not used as labourer;
4) **Apprentice** – The apprentice needs to show commitment and abide by rules and regulations.

**Several methods are used to ensure that there is a high quality of on the job training. These include:**

1) **Task books/log books**
   **The role of the Task books/log books is to:**
   a) Issue and explain the usage and role of the Learner;
   b) Explain the usage and role of the coach/mentor/artisan;
   c) Ensure 100 percent completed and signed off log books at all levels;
   d) Ensure regular visits by OTJ officer per trade to check progress, to guide and to discipline;
   e) Keep track of apprentice profile, i.e. their progress.

2) **Monthly appraisals**
   These are done by the artisan working with the learner:
   a) Signed off by appraiser and learner;
   b) Checked and signed off by supervisors;
   c) Collected by OTJ Training Officer for filing at the end of every month;
   d) OTJ Officer captures the scores in the Profile form.

3) **Quarterly sectional rotations:**
   a) Rotational schedule in place;
   b) Trade Advisory Committee decides on placement;
   c) Learners change sections every three months (if there are more sections);
   d) Outgoing supervisor discusses learner shortcomings with the new supervisor.

**100 trainees were recruited in 2013 and 95 graduated in 2017 in the following areas:**

   a) Heavy Plant - 20;
   b) Fabrication and Welding - 16;
   c) Maintenance Industrial Electrician - 14;
   d) Maintenance Fitter and Machining - 15;
   e) Instrumentation - 15;
   f) Millwright - 15.

The first two trades were trained at Botswana College of Engineering and Technology and the other four at Francistown College of Vocational and Technical Education.

Audits performed on the impact of the ADP indicated that the objective of producing job-ready graduates that address the needs of the industry in Botswana’s growing economy is noble and has been achieved. Key to the overall success of the programme are strategic alliances with leading Botswana companies where a matching partnership is forged through the Botswana Chamber of Mines (BCM). The companies receiving the learners for attachment are satisfied with the content of the programme, citing that the learners maturity and aptitude for work are impressive. They highly commended the programme.

The ADP project revealed positive feedback regarding the close integration of theory and practice, the immediate reinforcement of learning, and the practical application to real working conditions as a strength of the programme.

Moving forward, there is a need to:

   a) Secure long term funding since implementation of TVET is very expensive;
   b) Increase the number of trainers and resources to be able to participate more effectively during the learners six months of the industry training;
   c) Involve DTVET/Skills Development in
the MMEWR Industry Training Systems for secondment of both trainees and lecturers;
d) Revamp the DTVET/Skills Development training curriculum with the involvement of the industry;
e) Establish a long term relationship between the ELP&SD and the MMEWR industry to create linkages of technical cooperation.
TESTIMONY TWO: TVET GRADUATE

Ms Tsimakanyane revealed that her primary school teacher and her mother were inspirational in shaping her destiny. From a nearly young age she knew she wanted to have an impact, but did not know how to go about it. Her primary school teacher used to appoint her to sing at assembly, and this helped develop her confidence and sense of responsibility.

She studied Home Economics (HE) at school, simply because her mother used to teach her how to sew at home; she then became good at the subject. She would demonstrating sewing techniques to other learners in class. Together with her mother they would sew dresses and sell them. At Junior Certificate she selected Home Economics as a subject of study. Other students had chosen Religious Education (RE) as it was perceived to be easier and they convinced her that she was not going to make it since HE was difficult. She then quit HE and took RE as she did not want to fail. Her mother (a single mother who could not read or write), taught herself how to sew with a machine; so she also started learning from her mother how to sew by machine at home. Fear had stopped her from taking HE at school. As a result she could not take Fashion and Fabrics at Senior Secondary School as she did not have the required HE background. She therefore enrolled for Design and Technology.

Later, she realised that all this was part of God’s plan; that despite not having taken HE at JC she was born a fashion design as she loves it. She tried her hand at teaching but could not get into any College of Education. She then applied to Gaborone Technical College (GTC) for Fashion Design and was admitted. She became a trouble student at GTC since she was always at loggerheads with the instructor - yet paradoxically later becoming her mentor. Their programme was not accredited at the time. The Foundation course lasted three years instead of 18 months.

She got an attachment opportunity at Caratex which was knitting, making products labelled and priced as if they were made in South Africa. They would make the same clothes for different shops. After her certificate level she was attached to Botswana Enterprise Development Unit (BEDU). After this attachment she could not find employment. Her GTC mentor later gave her a sewing machine and encouraged her to start making clothes and since then, she has never looked back.

She expressed a wish that HRDC could advise Senior Secondary School learners to choose options wisely. She noted that with the right career advice she would have realised earlier that through her passion for the fashion and fabrics she was indeed wired to become a Fashion Designer of note. She encourages learners to first identify their passions in order to choose programmes of study. She also pointed out that it is the duty of the parents to also pay attention to what their children enjoy and encourage them to pursue their passions. Miss Tsimakanyana is a proud TVET graduate.
FCTVE started skills development training in 2013. At the time, District Councils would request FCTVE to train beneficiaries of poverty eradication to equip them with the necessary skills to start projects that they funded. FCTVE adopted this mode of training and extended it to other equally disadvantaged groups like Out of School Youth, women and disadvantaged children within the communities around Botswana. The training programmes are offered annually. Each department is expected to identify and offer training to the needy groups. Training has already been offered in the following areas:

**Table 16: Areas of Training**

<table>
<thead>
<tr>
<th>AREAS OF TRAINING</th>
<th>UNITS/MODULES COVERED</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hairdressing</td>
<td>Salon reception and administration, Hair Relaxing, Locking, Cutting, Shampooing and Conditioning</td>
<td>Three months</td>
</tr>
<tr>
<td>Food Catering</td>
<td>Menu Planning, Cookery Processes, Introduction to Food and Beverage Services, Control of Sales, Hygiene and Safety</td>
<td>Three months</td>
</tr>
<tr>
<td>Fashion and Design</td>
<td>Garment construct, Pattern Making, Printing and Dyeing, Weaving and Knitting, Fashion Accessories</td>
<td>Three months</td>
</tr>
<tr>
<td>Wielding and Electricity</td>
<td>Wielding and Fabrication, Electricity</td>
<td>Three months</td>
</tr>
<tr>
<td>Machine Fitting</td>
<td>Machining of basic components, Bolts and Nuts, Couplings</td>
<td>Three Months</td>
</tr>
<tr>
<td>Business</td>
<td>Basic Business skills such as Book Keeping/Record-keeping, Advertising/Marketing skills and Networking</td>
<td>One – Two Weeks</td>
</tr>
</tbody>
</table>
### Table 17: Areas of Training by Council

<table>
<thead>
<tr>
<th>COUNCILS/AREAS</th>
<th>AREA OF TRAINING</th>
<th>TOTAL NO OF TRAINEES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Food Catering</td>
<td>Hairdressing</td>
</tr>
<tr>
<td>Serowe Administration Authority</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okavango Sub-District</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maun Sub-District</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bobirwa Sub-District</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Francistown City Council</td>
<td>66</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North East District</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palapye Administration Authority</td>
<td>-</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutume Sub-District</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahalapye Administration</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tonota Sub-District</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boteti Sub-District</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerald Estate/Kgotla</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>157</strong></td>
<td><strong>274</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No formal tracer studies have been conducted to determine the impact of these initiatives. However, through random sampling and interactions with the beneficiaries we note that the programmes are very helpful and we are encouraged to continue assisting. Below are some of the beneficiaries we sampled:

1) Ms Kagiso Raditsebe

Kagiso Raditsebe, a Chadibe resident a mother with one daughter, took part in the FCTVE lifelong learning programme. Upon completing the programme Ms Raditsebe was funded by the Tonota Sub-District Council under the Nyeletso Lehuma initiative to start a Food Catering business. Kagiso’s customers are predominantly Government and village individuals. Even though the business is still at infancy level, Ms Raditsebe indicated that the business is developing well despite the challenges encountered.

2) Mrs Boremo Obed

Mrs Obed is also one of the beneficiaries of the lifelong learning programme studying Food Catering. She was funded by the City of Francistown Council to start her business. Boremo attested to the fact that since she established her business life has relatively improved because she has been able to renovate her house and support her unemployed children. Mrs Obed is joined in this business by her husband, who is her anchor. She occasionally engages a few helpers for events catering.

One of the challenges facing this initiative is that staff consider these initiatives as a burden on them as they already have their long term learners workload. Additionally, there is some reluctance to assess the impact of these initiatives. Lastly, there are budgetary constraints associated with running these programmes.

Going forward, in order to develop our communities, we need to:

a) Encourage staff to contribute willingly to the communities they live within;
b) Encourage other ETPs and stakeholders to come on board as their efforts could make a big difference in the lives of their communities;
c) Look into aspects of funding.
The discussions following from the last few presentations of the day centred on four focus areas, namely:

1) **Provision of affordable work space for TVET graduates**

Participants observed that TVET by nature produces learners who are able to create employment for themselves and also employ others. In view of these things, participants suggested that HRDC should create work spaces (workshops) like Botswana Enterprise Development Unit (BEDU) used to do which TVET graduates can rent and operate their businesses from. These students could then create more employment as they would need services such as accounting, book-keeping, etc.

2) **Encouraging TVET routes from primary school level**

Participants suggested that TVET should start at primary school level to ensure drawing upon learners passions from an early age.

3) **Implementation of resolutions taken from Pitso deliberations**

Participants observed that the topics under discussion at the Pitso were not new since they had been discussed before in similar fora. They therefore urged that there was indeed a need to focus on implementation of resolutions from the TVET Pitso and other forums that have previously discussed similar issues.

Participants further observed that when gatherings come up with resolutions, there is
need to state which institutions will be responsible for their implementation. This approach will then allow HRDC to make a follow-up and coordinate the execution.

4) Qualification levels for TVET programmes

Participants noted that TVET programmes do not necessarily require a lot of theory or formalised qualifications which go beyond degree level. They noted that TVET programmes need to be practical; for example, for one to be a Chef, they need a lot of cooking practice rather than to learn theories of cooking. TVET should therefore emphasise skills more than formal learning.
The Director pointed out that we all have noted the importance of TVET and how much we can achieve through it. This TVET Pitso has challenged us for action. In fact we have already been informed that through Vision 2036, Botswana acknowledges and embraces a new era - an era to be characterised not only by clear plans, but by deliberate and clear efforts to execute our plans, strategies and initiatives.

NDP 11 Page 70 speaks to:
1) The revision of curricula across all levels; 
2) Matching training with industry; 
3) Retooling of skills in areas that have been identified as critical to improve the performance of the economy; 
4) Increasing the utilization of ICT.

As per NDP 11, these measures are expected to improve the quality of graduates, thus contributing positively to growth in all key sectors of the economy. Agenda 2030 Target 4.3 says:

“By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.”

The UNESCO Recommendations Concerning TVET (page 9) speaks to TVET as part of lifelong learning, which can take place at secondary, post-secondary and tertiary levels. It includes work-based learning and continuing training and professional development which may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills and citizenship skills are integral components of TVET.

The success of this Pitso is reliant on all key players in government, the private sector, Industry, civil society groups, parastatals, development partners and international agencies. Throughout this Pitso the speakers emphasized industry involvement in the training of Artisans and Technicians in the country which is crucial for economic diversification. The need for improved linkages between training institutions and industry as represented by employers is of paramount importance. This Pitso therefore, has to have impact.

During his closing remarks of one of the SADC sessions in 1999, the Former RSA President Thabo Mbeki, once said:
“However, the fact that we know what needed to be done did not mean that what we planned to do was therefore done; nothing is done until it is done.”

We should all go out to implement all the resolutions we came up with in this Pitso. I close by quoting Thessalonians 5:21 which says “Testing everything. Hold on to the good”.