CTVET
COMMISSION FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

GHANA TVET REPORT (2021)

Ministry of Education
REPUBLIC OF GHANA

GO:VET
German Office for International Cooperation in Vocational Education and Training

Scripted by CTVET in collaboration with BIBB under the auspices

of

Ministry of Education

Ghana

DECEMBER, 2021.

FOREWORD BY THE MINISTER FOR EDUCATION

The current Administration came to power on the back of an "agenda for jobs" campaign and, among others, intends to "enhance agricultural production and productivity, along with a transformation of the economy through value addition to raw materials in a process of rapid industrialization" (NPP Manifesto, 2016).

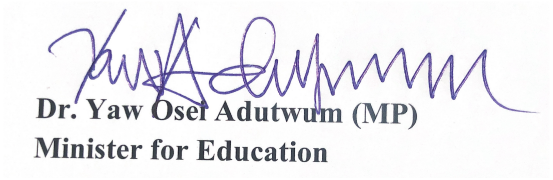
The Government has also promised to upgrade and revamp existing Technical and Vocational institutions, while ensuring that each of the sixteen regions of the country has Two (2) state-of-the-art Technical and Vocational Education and Training (TVET) Institutions.

Several reforms have been undertaken by the government since 2017. Key among them is the Skills Gap Analysis and Audit, establishment of Sector Skills Bodies, upgrade of existing TVET institutions, construction of new TVET institutions, free apprenticeship training and free TVET at the second cycle level.

In addition to these, the government has committed to do the following over the next four years;

a. consolidate the implementation of the Free SHS and Free TVET programmes
b. train and employ more teachers for TVET
c. complete the implementation of the 5-year Strategic Plan on TVET and establish a national Skills Development Fund
d. continue with our infrastructure development programme across all levels of the education sector, and
e. implement the Ghana jobs and skills project.

It is my expectation that this report will contribute immensely to shaping the discourse on TVET in Ghana and influence policy decisions going forward. This report is a key KPI within the five-year strategic plan for TVET, and I am glad the first of its kind has been developed.



Dr. Yaw Osei Adutwum (MP)
Minister for Education

FOREWORD BY THE DIRECTOR GENERAL

As part of efforts to advance our mandate of overseeing, regulating and giving policy advice to the Government, we are leading the process of transforming TVET delivery to make it relevant to the industry by producing the required expertise to propel growth within specified sectors in the long term.

We recognise the immense benefits the country can gain from promoting TVET and thus we are committed towards improving TVET in Ghana. We are taking conscious steps to make Ghana a centre of excellence in TVET and to make Ghana globally competitive within the TVET ecosystem. This commitment is clearly shown in our quest to revamp TVET and make it more attractive with massive investments in TVET infrastructure and several marketing campaigns to change negative perceptions about TVET in Ghana.

Among the steps being undertaken to make Ghana a centre of excellence for TVET is the plan to construct Two (2) centres of excellence for TVET in all Sixteen (16) regions across the country bringing it to a total of Thirty-Two (32) centres of excellence. I am pleased to inform you that Nine (9) of them have received approval from parliament to be constructed. In addition to these, the president also cut sod at Anyinam in the Eastern Region for the construction of a state-of-the-art TVET centre which is being constructed by De Lorenzo S.P.A Milan, an Italian construction company.

This TVET report will therefore detail the major interventions being undertaken in the TVET sector as well as catalogue the key issues relevant to that sector. This document will also guide policy makers, development partners and other government agencies in their activities within the TVET sector.

Dr. Fred Kyei Asamoah
Director General.

Acknowledgement

The Commission for TVET together with the Ministry of Education acknowledges and appreciates the technical and financial supports offered by the various stakeholders during the production of the maiden Ghana TVET Report. We remain grateful to the Ministries, Departments, Agencies, Training Institutions, Industry and Donor Partners for responding positively to the Commission's request for Data.

The Commission is grateful to the German Federal Ministry of Education and Research (BMBF), German Federal Institute for Vocational Education and Training (BIBB) and German Office for International Cooperation in Vocational Education and Training (GOVET) for the technical support.

The financial support from UNESCO for the validation of the document through a workshop and the forum on TVET was very helpful and its duly acknowledged.

The technical support and contributions of all the Departments of the Commission is much acknowledged.

Executive Summary

Ghana's TVET sector and system cuts across all sectors and this places a significant responsibility on the Commission for TVET as the central body in the TVET Landscape to be accountable and responsive to the demands of the TVET sector. For a TVET System to be able to play its role effectively, it is important that some key actions are taken, which include effective coordination and harmonization of all overlapping TVET related policies with provision of adequate funds, developing positive social attitudes towards training as wells as good governance and enhanced management.

Africa and for that matter Ghana needs skilled and competent workforce such as artisans and technicians to fill the skills gaps of the various sectors of the economy. This is one of the reasons why the Commission for TVET is mandated as set out in the Education Regulatory Bodies Act, 2020 (ACT 1023) to develop a national report on skills development in the country which will provide the spine for development of programmes and policy formulation.

This report is the first ever National TVET Report in Ghana and it attempts to consolidate, verify and transparently present information and data on the TVET sector in Ghana. This report has been compiled to help the Ministry of Education and the Commission for TVET as well as other agencies and stakeholders to plan towards the future to make the TVET system the bedrock of Ghana's industrialization agenda.

Chapter I provides a general panorama and scope of the report, its limitations and the methodology. CTVET conducted a study among 85 training providers (public and private, 15% of all TPs). The study provides valuable insights in the TVET sector.

The governance section of the report provides a summary on the development of the TVET sector in Ghana dating back to 1970 until the latest reforms (Chapter II). Since 2017, a number of reforms have been undertaken in the TVET sector starting with the 5-year strategic plan for TVET transformation. Compiling this information in one document is a novelty. Besides past developments, the report also includes an outlook into the future: While the Fourth Industrial Revolution may be disruptive to many occupations, it is also projected to create a wide range of new jobs in fields such as STEM, data analysis, computer science and engineering (World Economic Forum, 2020). This embraces the future of work and the skills that will be required which is adequately captured in the report.

The section on Access to TVET (Chapter III) provides general facts and figures on the TVET sector. Over the past five years, pre-tertiary TVET has seen a sharp increase and more than doubled its enrolment figures: in 2015, around 25,000 students were enrolled, whereas 2020 saw about 100,000 students enrolled in pre-tertiary institutions. Majority of them were enrolled in the GES and NVTI institutions. Both training providers have expanded their share of total students' enrolment over the past Five (5) years. Comparing the figures from 2015 to 2020, GES has seen a 400 % increase while NVTI saw a 300 % increase in enrolment.

Out of a total of Five Hundred and Seventy-Five (575) pre-tertiary TVET institutions (both private and public), 25% have been accredited by CTVET and are therefore entitled to run CBT-based programmes. These 25% offer qualification programmes from levels 1 to 4 on the National TVET Qualification Framework (NTVETQF).

Eighty Five percent (85%) of the surveyed Technical and Vocational Institutes (TVIs) stated that they have implemented the Workplace-Experience Learning as part of the Competency-Based-Training programmes. Majority of them also engage in apprenticeship and on-site training at the TP.

In the tertiary TVET sector, enrollment figures for the academic year 2019/ 2020 are almost on the same level as in 2015/2016 (52,765 compared to 56,610). The share of female students has increased from 34.2% (2015/16) to 39.4 % (2019/20).

Also, the survey revealed that there is only one TVET institution that is dedicated to persons with special needs, while 38% of the surveyed TPs report to have persons with special needs among their student population.

In the informal sector, 18,048 Master Crafts Persons (MCP) and Apprectices had been trained in CBT Methodology between 2017 and 2021, with 73 % of them being females. Forty-Nine (49%) of the beneficiaries were apprentices. Fifty-One (51%) were MCPs.

In Chapter V on TVET finance, the flow of funds in the TVET sector is highlighted and it shows how disbursements are made. Since 2018, the TVET sector has seen an increase in budgetary allocation by 224% to 1.908 GHC Million in 2021. Generally, tertiary education receives around double the amount by the Ministry of Education (4.099,7 GHC Million in 2021). The CTVET's study indicates that 61% of the Training Providers (TPs) who participated in the survey work with institution's internally generated funds, while 21% exclusively work with the funds provided by government.

This report details the contribution of Sector Skills Bodies and Trade Associations towards Skills Development and how industry collaboration helps to develop skills (Chapter VI). It also touches on the shortcomings of industry engagement, involvement of the informal sector in skills development and a case study of how the construction industry contributed to the development of training packages.

Eleven (11) SSBs have been inaugurated so far, each comprising of 12-19 industry partners as members and together with industry experts, developed 44 training programmes. The TPs consider these competency-based-programmes as helpful to prepare young persons towards industry needs. Other analyses, for instance the Skills Gap Analysis (2019), indicated discrepancies that are to be analysed further and discussed in the SSBs.

As lined out in Chapter VII, International Cooperation in the TVET sector is very critical so CTVET currently holds regular quarterly meetings with all development Partners involved in the TVET sector to discuss the various cooperation projects. The projects focus on a variety of different topics: curricula and standard development, recognition of prior learning, organizational development, monitoring and reporting, skills competition & marketing as well as financing mechanisms. This is very useful in eliminating duplication of efforts.

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AGI	Association Ghana Industries
AI	Artificial Intelligence
AAMUSTED	Akenten Appiah Menka University of Skills Training and Entrepreneurial Development
B.Tech	Bachelor of Technology
BIBB	German Federal Institute for Vocational Education and Training
BMBF	German Federal Ministry of Education and Research
CBT	Competency Based Training
CIBA	Council for Indigenous Business Associations
COTVET	Council for Technical and Vocational Education and Training
COVID-19	Coronavirus Disease of 2019
CPTC	COTVET Preparatory Technical Committee
CDVTI	Community Development Vocational Technical Institute
CSOs	Civil Society Organizations
CTVET	Commission for Technical and Vocational Education and Training
DANIDA	Danish Development Cooperation Agency
D.Tech	Doctor of Technology
ERBA	Education Regulatory Bodies Act
ERBB	Education Regulatory Bodies Bill
ESP	Education Strategic Plan
FEPTAG	Federation of Professional Trade Associations of Ghana
GES	Ghana Education Service
GEA	Ghana Employers Association
GOVET	German Office for International Cooperation in Vocational Education & Training
GDP	Gross Domestic Product
GIZ	German Development Agency
GTTC	Government Technical Training Center
GTEC	Ghana Tertiary Education Commission
GRATIS	Ghana Regional Appropriate Technology Industrial Service
GNTDA	Ghana National Tailors and Dressmakers Association
GABSSO	Ghana Association of Barbers & Barbering Salon Owners
GHABA	Ghana Hairdressers and Beauticians Association
GNAG	Ghana National Association of Garages
GESTA	Ghana Electronics Servicing Technicians Association
GSDI	Ghana Skills Development Initiative
GTVP	Ghana TVET Voucher Project
HND	Higher National Diploma
ICCES	Integrated Community Centers for Employable Skills
ICT	Information Communication Technology
ILO	International Labour Organization
ITAC	Industrial Training Advisory Committee
JICA	Japan International Cooperation Agency
KPI	Key Performance Indicators
LI	Legislative Instrument
MEP	Migration and Employment Promotion
MES	Modules of Employable Skills

MoE	Ministry of Education
MMYE	Ministry of Manpower Youth and Employment
M.Tech	Master of Technology
NABPTEX	National Board for Professional and Technician Examinations
NACVET	National Coordinating Committee for Vocational Education and Training
NC I	National Certificate I
NC II	National Certificate II
NDPC	National Development Planning Commission
NOS	National Occupational Standards
NTVETQC	National TVET Qualifications Committee
NTVETQF	National TVET Qualification Framework
NAHB	National Association of Hairdressers and Beauticians
NVTI	National Vocational Technical Institution
NGOs	Non-Governmental Organizations
NP I	National Proficiency I
NP II	National Proficiency II
OIC	Opportunity Industrialization Centre
OS	Occupational Standards
PEF	Private Enterprise Federation
PSED	Programme for Sustainable Economic Development
PPP	Public Private Partnership
PWD	People With Disability
TVET	Technical Vocational Education and Training
TVET CG&C	TVET Career Guidance and Counselling
TPs	Training Providers
TQAC	Training Quality Assurance Committee
QA	Quality Assurance
REP	Rural Enterprise Programme
RPL	Recognition of Prior Learning
SDF	Skills Development Fund
SHS	Senior High School
SSBs	Sector Skills Bodies
SPSS	Statistical Package for the Social Sciences
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Programme
VTF	Vocation Training for Females
WB	World Bank
WEL	Workplace Experience Learning
YLSTI	Youth Leadership and Skills Training Institute

CHAPTER I

BACKGROUND

1.1 Introduction

Technical and Vocational Education and Training (TVET) has enormous potential for socio-economic transformation. TVET provides a platform for national skills development. It also helps to improve the productivity and competitiveness of the skilled workforce in raising the income-earning capacities of many people.

In Ghana, TVET is delivered in two major streams: formal and informal. The formal or institutional based TVET is delivered in a structured environment usually called training institutions. TVET training institutions are owned and operated by either government (public) or private individuals. Public training institutions are operated under different ministries such as Education, Employment and Labour Relations, Youth, Sports, and Agriculture, Trade and Industry, Gender, Children and Social Protection, Transport as well as the Lands and Natural Resources.

In addition, there are many registered and unregistered private training providers all of which provide employable skills in the informal economy through apprenticeships and other forms of informal sector skills training. Skills development also takes place in the enterprises through on-the-job skills training and upgrading of employee skills.

Until the passage of the Education Regulatory Bodies Act, 2020 (Act 1023), the TVET landscape in Ghana had been fragmented across different ministries and public agencies. The Act established the Commission for TVET with a mandate to regulate, promote and administer technical and vocational education and training for transformation and innovation for sustainable development and realigned all TVET Institutions under the Ministry of Education. This is manifested in the Pre-Tertiary Education Act (Act 1049) which establishes the TVET Service.

However, despite the many opportunities provided under skills development, comprehensive data on the TVET sector remains a gap in TVET policy planning and expenditure. To address this gap, the Commission for TVET, with technical support from the German Federal Institute for Vocational Education and Training (BIBB) the German Office for International Cooperation in Vocational Education and Training (GOVET) and United Nations Educational, Scientific and Cultural Organisation (UNESCO) Ghana, has put together this report which is the first edition of the Ghana TVET Report. The project is part of the Ghana Germany Collaboration on a joint declaration of intent signed between the Ministry of Education and German Federal Ministry of Education and Research (BMBF) on 29th July 2019.

The report provides useful data on TVET governance, access, finance, quality, and industry engagement. It also provides a spine for the development of programmes and Policy formulation as well as contributing to building a robust TVET system for Ghana's development.

The TVET Annual Report would disseminate information to many young people and guardians who are seeking information about TVET programmes. In addition, TVET planners, policy makers, and researchers can benefit from this report.

1.2 Objectives

The objectives of this report are as follows:

a. To provide timely, reliable TVET data for effective policy planning and decision making
b. To inform all stakeholders on the developments in the TVET landscape
c. To provide policy advice on the state of TVET to Government

1.3 Methodology and Scope of Report

The study used mixed methods to gather both quantitative and qualitative data. Data was collected from two main data sources: secondary and primary. Secondary data include literature review, compilation of existing reports – both published and unpublished. Lessons from TVET reports from other TVET implementing countries also helped to enrich the quality of data used for this report. Gaps identified in the secondary source data informed the design and type of data required for further analysis.

The primary data was collected using structured and semi-structured questionnaires meant to solicit responses from key stakeholders. Responses were collected from three broad categories of stakeholders, these are: Training Providers, Assessors, Master Craft Persons and Trade Associations; development partners and industry actors like the Sector Skills Bodies and Industry Experts.

Because of the COVID-19 pandemic, questionnaires were self-administered through google forms. A two-day virtual orientation on self-administered questionnaires was organized for all categories of respondents to enable them provide correct responses to each question item. Respondents were given two weeks to provide responses via the google forms.

The completed data sheet was extracted, cleaned, and imported to SPSS software for further analysis. Open ended questions were analyzed using thematic analysis. Simple descriptive statistics and frequency tables were generated for analysis. A total of 85 training providers (public and private, 15% of all TPs) participated in the study. About 36.7% of the TPs are public whiles 63.3% are private.

Data management and writing of the report was done by an in-house team. The first draft of the report was subjected to team review and the feedback received was incorporated into the document and subsequently validated by stakeholders.

1.4 Limitations

In adherence to COVID-19 protocols, questionnaire administration was conducted using the google form. This posed a challenge to many of the training providers due to challenges with network connectivity, among others. As a result, some selected respondents were unable to provide responses to the questionnaires and hence could not participate in the survey. Data from approved secondary sources were used to improve the quality and reliability of the report. Apart from institutions specific data, the report largely adopts nationally certified and approved data for the TVET sector.

1.5 Major Stakeholders Engaged

In developing the report, the following key stakeholders were engaged during data collection processes and validation workshops: Ministries, representatives from Sector Skills Bodies, Training Providers, Assessors and Master Craft Persons; Trade Associations and Development Partners.

1.6 Organization of the Report

The report is organized in seven chapters. Chapter One outlines the background of the report, objectives, methodology used and key stakeholders that took part in the study. Chapter Two looks at TVET Governance with focus on information on the history and the governance structure of TVET delivery in Ghana. The chapter also gives a projection on the Future of TVET in Ghana. Chapter Three deals with access to TVET, enrolment, distribution of training institutions, programmes in formal and informal sectors. Chapter Four presents the various quality assurance processes and procedures in the TVET delivery system. Chapter Five looks at TVET Financing with focus on sources of funding and cost per learner across the various training providers. Chapter Six presents information on industry engagement whereas Chapter Seven looks at International Cooperation with focus on the role of the various Development Partners in the sector.

CHAPTER II

TVET GOVERNANCE

2.1 Introduction

TVET is crucial to the social-economic development of a nation. It provides training opportunities and career advancement avenues for the youth as well as providing skilled manpower that is needed at all levels of the economy. The skills developed should be able to lead to self-reliance and also enhance the industrialization process. It is a known fact that TVET is an instrument for sustainable development. However, it is still peripheral, and its significance is yet to be felt in Ghana.

For a TVET System to be able to play its role effectively, it is important that some key actions are taken, and these include effective coordination, harmonization of all overlapping TVET related policies, provision of adequate funds, developing positive social attitudes towards training as well as good governance and enhanced management. The government and the private sector recognize that TVET is an investment, not a cost, with significant returns including the wellbeing of workers, enhanced productivity, international competitiveness, and economic growth. Enhanced management should ensure that TVET is well coordinated to reduce waste of resources and improve relevance and retention of training personnel in the country.

2.2 TVET Governance Structure Prior To the Establishment of COTVET

This section gives the historical background of some key strategic development in the TVET sector prior to the establishment of the Council for Technical and Vocational Education and Training (COTVET) and navigates through to the establishment of the Commission for TVET.

2.2.1 The Era of NVTI

Technical and Vocational Education and Training (TVET) has been an integral part of the Ghanaian education system for a long time. It has been used as a comprehensive term referring to those aspects of the education and training process that involves the study of technologies and related sciences, and the acquisition of practical skills and attitudes relating to occupations in various sectors of our economic and social life.

Prior to the year 2000 NVTI was the mandated Institution that was coordinating TVET and Apprenticeship in Ghana. ACT 351 of the Parliament of the Republic of Ghana entitled the National Vocational Training Act, 1970 established a National Vocational Training Institute to co-ordinate, at the national level, all aspects of vocational training including apprenticeship. This Act was assented to by the President on the 12th of January 1971.

Functions of the Institute are as follows:

a. to organize apprenticeship, in-plant training and training programmes for industrial and clerical workers, and to train the instructors and training officers required for that purpose.
b. to provide for vocational guidance and career development in industry.
c. to develop training standards and trade testing.
d. to initiate a continuing study of the country's manpower requirements at the skilled worker level.
e. to establish and maintain technical and cultural relations with international organizations and other foreign institutions engaged in activities connected with vocational training; and
f. subject to the provisions of this Act, to do all such things as are conducive to the attainment of the objects of the Institute.

2.2.2 National Coordinating Committee for Technical and Vocational Education and Training (NACVET)

The National Coordinating Committee for Technical and Vocational Education and Training (NACVET) was established in 1990 to formulate policies and co-ordinate all aspects of technical and vocational education and training and to advise on a scheme and structure of technical and vocational education and training that would meet the requirements of the Ghanaian economy and make the youth employable in both the formal and informal sectors.

Another crucial function of NACTVET was the rationalization of the evaluation, testing, assessment, and accreditation procedures of the system of technical and vocational training. NACVET operated through Eight (8) technical sub-committees dealing with specific subjects as follows.

a. Technician Education and Training programmes
b. Craft Education and Training programmes
c. Technical Teacher education and instructor training programmes
d. Examination accreditation
e. Manpower Planning and collaboration with industry and commerce
f. Vocational / Career Guidance and counselling
g. International Cooperation
h. Tools Equipment and materials procurement and supplies

NACVET, following its establishment, has achieved the following:

a. Developed a Policy on Technical and Vocational Education.
b. Established the first National Occupational Standards (NOS) for some trade areas in Ghana by a corps of professionals.

In this connection, syllabuses in the form of Modules of Employable Skills (MES) based on the NOS were developed for Forty (40) relevant trade areas under the auspices of the Ministry of

Employment and Social Welfare and the UNDP/ILO Umbrella Programme for Sustained Employment Generation. The Umbrella Programme, which was made up of three components, aimed at promoting and sustaining employment policies and programmes through:

a) Enhanced Government capacity to plan and monitor employment policies.
b) More effective skill development and utilization in support of employment promotion; and
c) The development of micro and small enterprises programmes.

Under the auspices of this Umbrella programme, NACVET embarked on re-orienting technical and vocational education towards self-employment. In furtherance of this, entrepreneurial education was integrated into the curriculum for the Technical and Vocational Institutions.

NACVET commenced establishing, upon the appropriate legislation, a National Council for Technical and Vocational Education and Training (NACVET), to replace the existing National Co-ordinating Committee for Technical and Vocational Education and Training.

NVTI did not focus much on its coordination function but rather played the role of a Training Provider through a network of NVTI institutes. On the part of NACVET, the challenges they faced were largely due to the fact that it never had an Act of Parliament to back up its actions. For this reason, there was the need to establish the Council for TVET supported by an Act of Parliament.

2.2.3 COTVET Preparatory Technical Committee (CPTC)

The COTVET Preparatory Technical Committee (CPTC) was jointly formed by the Ministries of Education, Science and Sports (MOESS) and Manpower, Youth and Employment (MMYE) in June 2006 with Technical Assistance from the TVETS Project of Japan International Cooperation Agency (JICA). This technical committee of 20 Members was to oversee the implementation of the TVET Policy, the operationalization of the COTVET Act, the qualification levels and the TVET institutions and the implementation paths for TVET delivery in Ghana. The membership of this Committee was drawn from the Private and public sectors. Among the entities that were represented were:

- Association of Ghana Industries (AGI)
- Ghana Employers Association (GEA)
- Ghana Education Service (GES)
- National Vocational Training Institute (NVTI),
- Council for Indigenous Business Associations (CIBA)
- Vocational Training for Females (VTF)
- Ministry of Education, Science and Sports (MOESS)
- Ministry of Youth and Employment (MMYE) and
- Attorney General's Department

The composition and setting up of the three Standing Committees list in Act 718 was also critical to the CPTC.

Table 2.1 shows the evolution or landmarks in the TVET leading to a functional Council for TVET (COTVET) from 1990 to 2012.

The Evolution of the TVET Sector from 1990 to 2012

Several events and activities transpired between 1990 and 2012 and it is imperative that some of these milestones are highlighted in this report.

Table 2.1: The Evolution of the TVET Sector from 1990 to 2012

YEAR	LANDMARK / PROCESSES
1990	Establishment of NACVET (National Coordinating Committee for Technical and Vocational Education and Training)
1993	Establishment of NAB (National Accreditation Board)
1994	Establishment of NABPTEX (National Board for Professional and Technician Examinations)
1997	Advocated necessity of TVET reform
2000	Development study on Educational Development by MOE with JICA Developed "A Master plan to strengthen Technical Education in Ghana"
2001	TVET Policy Document (The first plan)
2002	Report on Education Reform (suggested establishment of NCTVET; National Council for Technical and Vocational Education and Training)
2004	National Consultative Forum on TVET Policy
2004	TVET Policy Document (Final)
2004	Submission of TVET Policy to the Cabinet
2005	Planning of Education Round Table Conference for Education Technical Committee
2005	Presentation of the TVET Policy Document to Cabinet
2006	Establishment of CPTC (COTVET Preparatory Technical Committee) by Directors of MOESS & MMYE
2006	Formulation of NERIC (National EDUCATION Reform)
2006	Sensitization Workshop on COTVET Bill
2006	Deliberation of the Parliament on COTVET Bill
2006	Enactment COTVET Bill

2007	Publication of NERIC Final Report
2007	Inauguration of COTVET Board (Appointment of Ag. Exe. Director of COTVET)
2008	Appointment of Executive Director of COTVET
2008	Executive Director assumed duty
2010	First set of Technical Staff assumed duty (CBT Specialist and Policy Specialist)
2010	Informal Sector Coordinator Reported to Duty Started partial operations in temporary office accommodation
2012	Passage of L.I 2195

Source: "A Holistic Approach to Technical and Vocational Skills Development (TVSD) Policy and Governance Reform: The Case of Ghana"

2.3 The Establishment of the Council for TVET and TVET Policies

2.3.1 The Council for Technical and Vocational Education and Training (COTVET)

The Council for Technical and Vocational Education and Training (COTVET) was established by the Council for Technical and Vocational Education and Training Act, 2006 (Act 718) of the Parliament of the Republic of Ghana in August, 2006 to coordinate and oversee technical and vocational education and training in the country and to provide for related matters.

Objective and functions of the Council

2.1.) The objective of the Council is to coordinate and oversee all aspects of technical and vocational education and training in the country.

2) To achieve its objective the Council shall:

a. formulate national policies for skills development across the broad spectrum of pre-tertiary and tertiary education, formal, informal and non-formal;
b. co-ordinate, harmonise and supervise the activities of private and public providers of technical and vocational education and training, including the informal sector;
c. rationalise the assessment and certification system in technical, vocational education and training;
d. take measures to ensure quality in delivery of and equity in access to technical and vocational education and training;
e. maintain a national database on technical, vocational education and training;
f. facilitate research and development in the technical and vocational education and training system;
g. source funding to support technical and vocational education and training activities;
h. facilitate collaboration between training providers and industry to promote

- demand driven curriculum development and placement, and
- national internship programmes

i. promote cooperation with international agencies and development partners;
j. issue annual reports on the state of skills development in the country;
k. advise Government on all matters related to the management and improvement of the technical and vocational education and training system; and perform any other functions that are ancillary to the object of the Council

The Governance arrangement under COTVET

The Council operated as an agency under the Ministry of Education and was governed by a Fifteen (15) member Board.

The Board was supported by three (3) Technical Standing Committees, which are:

- The National TVET Qualifications Committee (NTVETQC),
- The Industrial Training Advisory Committee (ITAC), and
- The Training Quality Assurance Committee (TQAC).

The COTVET Board also had the authority to constitute the following Committees that were deemed necessary:

- The Skills Development Fund and
- The National Apprenticeship Committees

Key Policy Achievements of COTVET

Based on its mandate, the Council laid some foundation blocks to spur the reforms in the technical and vocational education and training as well as skills development across Ghana. Significant among these include:

a. Establishment of National TVET Qualifications Framework (NTVETQF) which is being operationalized
b. Expansion of Competency-Based Training (CBT) use, with emphasis on linkage with industry which has been successful in 3 trade areas (Welding and Fabrication, Electronics and Mechanical Engineering)
c. Strategic Plan for TVET Transformation (2018-2022) developed and approved as the focus of the Council for the next five years
d. Implementation of key development projects on Public Private-Partnership basis to overhaul and rebrand TVET
e. Recognition of Prior Learning (RPL) policy developed and approved
f. Coordinated that development and passage of the Commission for TVET and TVET Service Acts.

2.3.2 Strategic Plan for TVET Transformation (2018-2022)

The Council as part of its efforts toward advancing the mandate for which it was set up has set the key goal of Transforming Ghana's Labour Force to Enhance Productivity and Employment. To achieve the said goal, some policy objectives have been outlined within the following broad areas: Governance and Management of TVET; Increased Access; improving Quality; TVET Financing; and Environmental Sustainability.

Governance and Management

To provide a coherent legal and institutional framework for the TVET sector which is accountable and responsive to the demands of the private sector and other stakeholders. The strategies to achieving this objective at the time of publication of this report are:

- Establishment of the Commission for TVET
- Realigning all TVET institutions under the Ministry of Education
- Operationalisation of the TVET Service is in progress
- Establishment of an Apex training institution to train TVET staff for both the public and the private sector, processes are being followed
- Strengthening Agricultural Training in TVET started with support from GlZ
- Processes to strengthen the capacity of COTVET are underway with the establishment of zonal offices within the country.
- Establishment of Sector Skills Councils in progress

Increased Access

To ensure equitable access and promote gender mainstreaming in TVET. The following strategies were undertaken by the Commission:

- Skills Gap Analysis and Audit has been conducted for ten economic sectors
- Profiling and Needs Assessment has been done for over 200 TVET institutions
- The Recognition of Prior Learning (RPL) has been developed and ready for implementation.
- Establishment of 32 New State of the Art Institutions
- Marketing and Promotion of TVET to stakeholders has begun through a strategy dubbed "MyTVET Campaign"

Improving Quality

To ensure quality assurance in TVET according to internationally accepted standards. The strategies to achieving this objective is:

- To effectively promote the Competency-Based Training Policy
- To strengthen the Capacity of the qualifications and Awarding Body (Assessment and Certification).

TVET Financing
To develop a sustainable source of financing for TVET. The strategy to achieving this objective is:

- The establishment of a Ghana Skills Development Fund to support TVET financing which has been approved by the World Bank ready to be activated.

Environmental Sustainability
To green TVET for the environmental sustainability. The strategy to achieving this objective is:

- To integrate Greening philosophies into TVET Institutions, the curricula, workplace practices and communities, research and institutitonal culture. The Institutional Greening Plans required to guide TVIs succesfully navigate this curve has been developed for 40 of them.

These objectives reflect the commitment to transform the TVET sector in the country by constantly improving the sector to create the enabling environment for the advancement of national development.

2.4 Factors that contributed to the re-alignment of the TVET Institutions under one Ministry

2.4.1 The presence of too many regulatory arrangements in the sector

There were too many regulatory arrangements in the TVET sector prior to the re-alignment process. Some of them include:

- The NVTI Act of 1970 (Act 351)
- The National Board for Professional and Technical Examinations (NABPTEX) Act, 1994, Act 492)
- The COTVET Act, 2006 (Act 718)
- The Polytechnic Act, 2007 (Act 745)
- National Council for Tertiary Education Act, 2007 (Act 454)
- National Accreditation Board Act 2007, (Act 744)
- Education Act of 2008
- Technical Universities Act.

2.4.2 Challenges with coordination

In all, Nineteen (19) Ministries were engaged in some form of TVET and therefore made coordination across the landscape quite challenging since each of the TVET Institutions were taking direct instructions from their ministries. The list below shows the various Ministries that were running TVET institutions:

List of TVET implementing Ministries

1. Ministry of Education
2. Ministry of Employment and Labour Relations
3. Ministry of Gender, Children and Social Protection
4. Ministry of Youth and Sports
5. Ministry of Trade and Industry
6. Ministry of Food and Agriculture
7. Ministry of Roads and Highways
8. Ministry of Tourism, Culture and Creative Arts
9. Ministry of Local Government and Rural Development
10. Ministry of Aviation
11. Ministry of Energy
12. Ministry of Health
13. Ministry of Transport
14. Ministry of Fisheries and Aquaculture
15. Ministry of Information
16. Ministry of Lands and Natural Resources
17. Ministry of Communication
18. Ministry of Finance
19. Ministry of Works and Housing

2.5 The Era after the re-alignment process

The Passage of the ACT 1023-Education Regulatory Bodies Act and Act 1049- Pre-Tertiary Education Act ushered in a new dawn and provided the TVET sector with fresh energy. It culminated in the establishment of the Commission for TVET (CTVET) and the TVET Service.

2.5.1 Establishment of the Commission for TVET (CTVET)

The Commission for Technical and Vocational Education and Training (CTVET) is a Government Education Regulatory Body established by an Act of Parliament, (ACT 1023, Education Regulatory Bodies Act), to regulate, promote and administer technical and vocational education and training (TVET) for the transformation and innovation for sustainable development.

Mandate

To regulate, promote and administer technical and vocational education and training transformation and innovation for sustainable development.

Functions

The Education Regulatory Bodies Act (ERBA) 1023 of 2020, stipulates the functions of the Commission as follows:

- Formulate national policies for skills development across the broad spectrum of pre-tertiary and tertiary education, formal, informal and alternative education
- Co-ordinate, harmonise and supervise the activities of technical and vocational education and training institutions to meet the requirements of both the formal and informal sectors
- Develop and implement a national assessment and certification system in the technical and vocational education and training
- Take measures to ensure quality, equitable and inclusive access in the provision of technical and vocational education and training
- Develop and maintain a national database on the technical and vocational education and training sector
- Facilitate research and development in the technical and vocational education and training system
- Source for funds to support technical and vocational education and training activities
- Facilitate collaboration between training institutions and industry to promote:
    - Industry-led and demand-driven curriculum development and placement
    - Workplace Experience Learning
    - Recognition of Prior Learning
- Promote co-operation with international agencies and development partners.
- Issue annual reports on the state of skills development in the country.
- Advise the Minister on all matters related to the management and improvement of the technical and vocational education and training system.
- Coordinate and promote industry-led occupational standards generation for demand-driven curriculum development and delivery.
- Accredit programmes, institutions, centres, facilitators, assessors and verifiers at the formal, informal, non-formal, public, private and pre-tertiary technical and vocational education and training institutions to ensure quality delivery.
- Collaborate with tertiary institutions and relevant agencies to implement competency-based training programmes on the National Technical and Vocational Education and Training Qualifications Framework; and
- Perform any other functions that are ancillary to the object of the Commission.
- The Commission and the Ghana Tertiary Education Commission shall jointly accredit technical and vocational education and training programmes and institutions at the tertiary level.

2.6 Tertiary Level TVET

TVET at the Tertiary level is manifested in the Technical Universities following the conversion of Polytechnics to Technical Universities. Polytechnic education which has metamorphosed into Tertiary TVET played a vital role in human resource development by creating skilled manpower, enhancing industrial productivity and improving the quality of life. The establishment of Polytechnics in Ghana goes back to the 1960's when technical institutes in Accra, Kumasi and Takoradi were re-designated as Polytechnics in 1963.

The establishment of other polytechnics followed in the 1980s to the 2000s. Cape Coast polytechnic was established in 1984. Tamale polytechnic which was initially established as a Trade Centre in 1951 was elevated to a polytechnic in 1986. Similarly, Ho polytechnic which was established as a technical institute in 1967 was upgraded to a polytechnic in 1986. Technical Institutes in Sunyani and Koforidua were elevated to polytechnics in 1997. Bolgatanga and Wa polytechnics were established in 1999 and 2000.

According to Polytechnics Act, 2007, (Act, 745), the objects of a polytechnic were to:

(a) provide tertiary education in the fields of manufacturing, commerce, science, technology, applied social science, applied arts and any other field approved of by the Minister; and

(b) provide opportunities for skills development, applied research and publication of research findings.

The Polytechnics operated until 2016 when the Technical Universities Act, Act 922 was passed. Eight Technical Universities were converted to Technical Universities and subsequently Bolga and Wa were also converted to change all Polytechnics to Technical Universities.

The Technical Universities Act of 2016, was amended in 2018 as Act 974

Below is the list of Technical Universities in Ghana:

- Accra Technical University
- Kumasi Technical University
- Takoradi Technical University
- Cape Coast Technical University
- Tamale Technical University
- Ho Technical University
- Sunyani Technical University
- Koforidua Technical University
- Bolgatanga Technical University
- Wa Technical University

In addition to the Technical Universities, there are 88 Nursing Training Colleges, 5 Agriculture Colleges and some other specialized training providers. In all, there are about 112 tertiary institutions that provide TVET service in Ghana.

There is also the Akenten Appiah Menka University for Skill Training and Entrepreneurial Development (AAMUSTED) which offers programmes for training facilitators for TVET Providers.

The Aims of a Technical University are as follows:

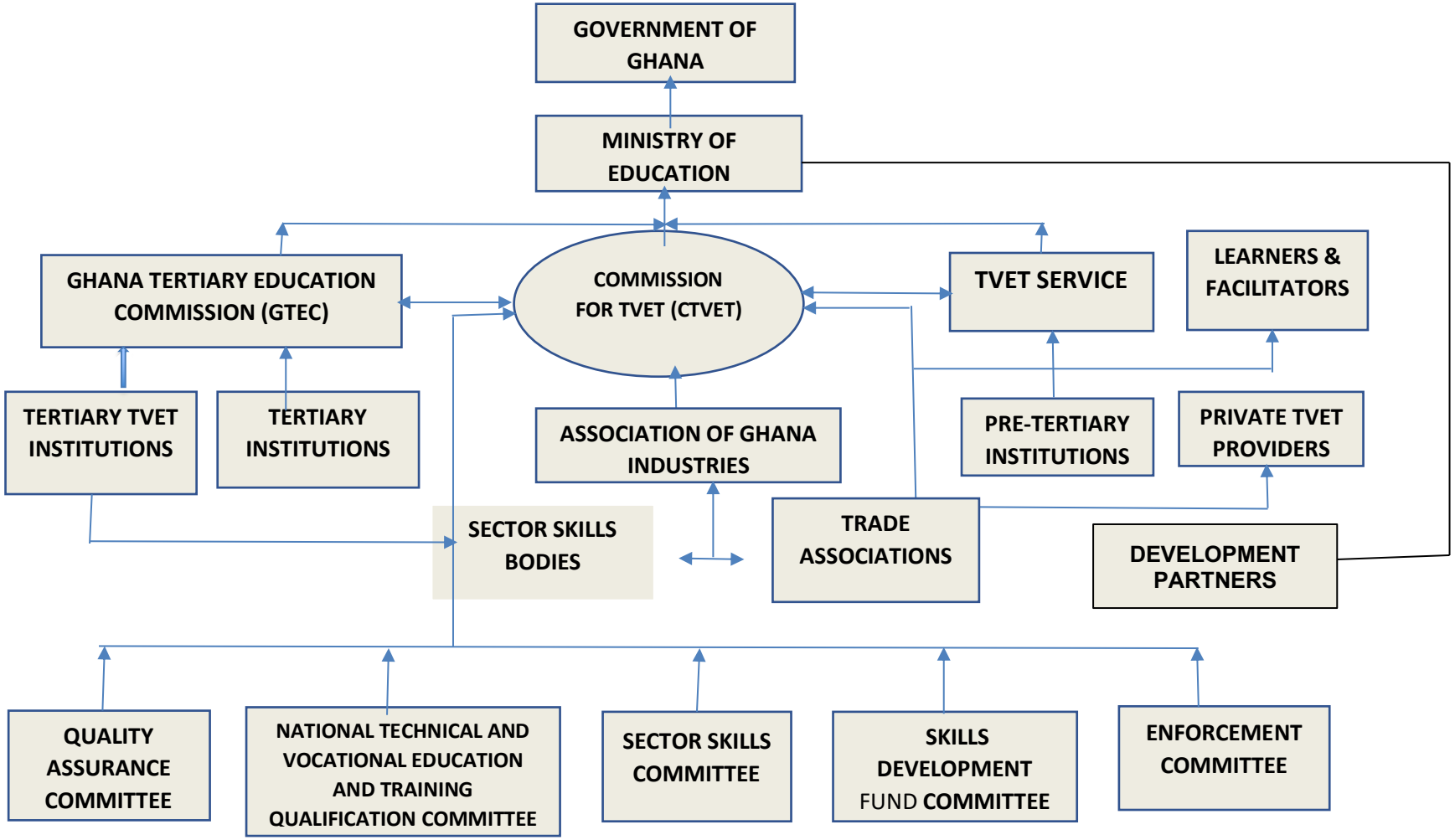
3. (1) The aims of a Technical University are to provide higher education in engineering, science and technology-based disciplines, technical and vocational education and training, applied arts and related disciplines as the Council of the Technical University may, in consultation with the National Council for Tertiary Education, determine in accordance with the following principles:

(a) higher education shall be made equally accessible to all persons suitably qualified and capable of benefiting from education and training offered at a Technical University.
(b) programmes of study shall take into consideration the multiplicity of scientific theories and methodologies.
(c) use competency based and practice-oriented approach in teaching, organization and delivery of courses.
(d) develop strong linkages and collaboration with relevant industries, businesses, professional bodies and technical experts in the design and delivery of programmes.
(e) offer programmes and courses within the mandate of a Technical University; and
(f) provide opportunities for technical and professional skills development, applied research and publication of research findings.

2.7 The TVET Landscape

Ghana's TVET sector and system is very involving and cuts across all sectors and this places a significant responsibility on the Commission as the central body. Figure 2.1 provides a pictographic dimension of the TVET Landscape in Ghana.

Figure 2.1: Overview of the TVET landscape in Ghana



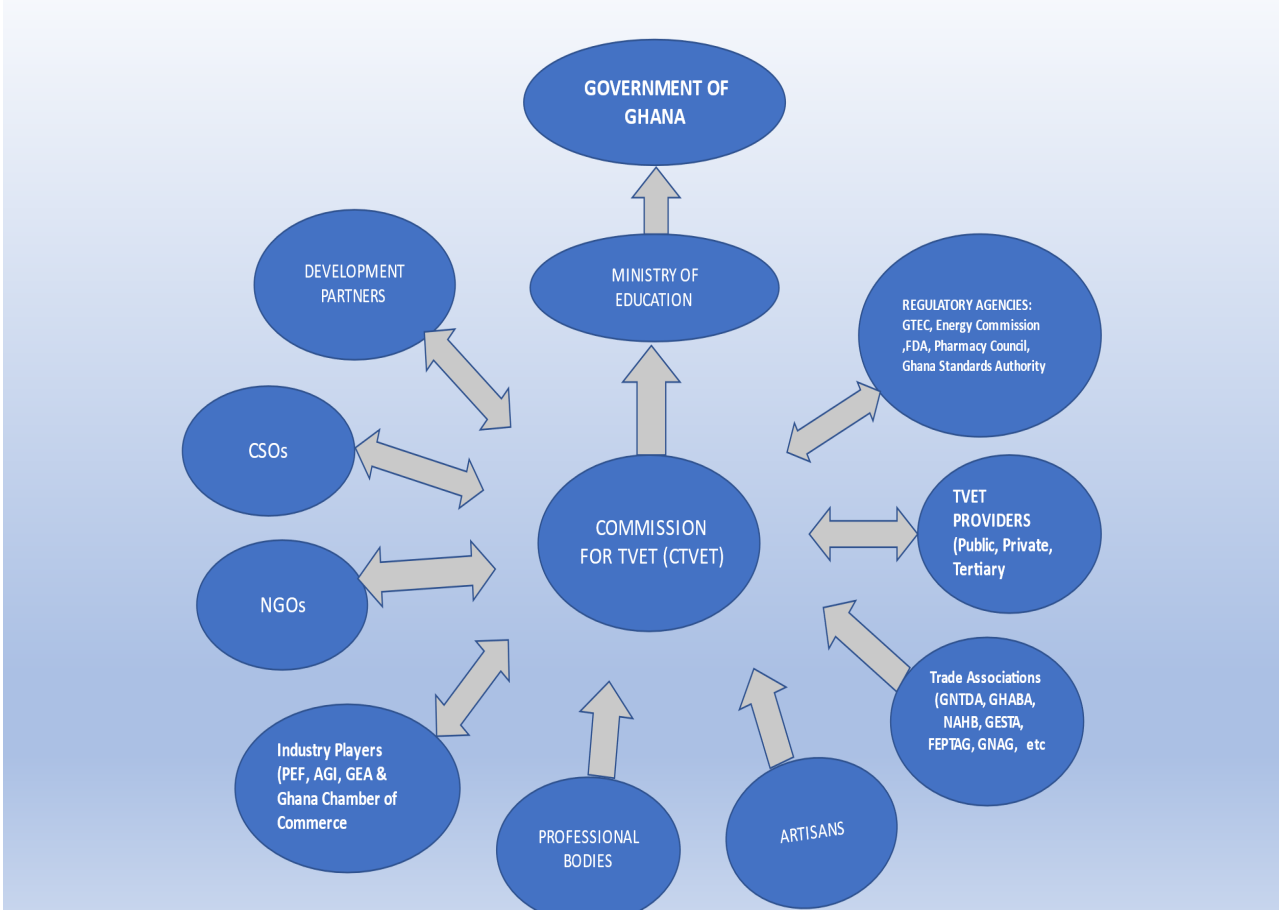
Source: CTVET Construct, 2021

2.8 Major Stakeholders in the TVET Sector

The Commission for TVET brings together and works closely with a broad range of stakeholders. Key among the stakeholders groups are:

- Government
- Ministry of Education (MoE)
- Other Ministries
- Regulatory Agencies: GTEC, Energy Commission, FDA, Pharmacy Council, Ghana Standards Authority,
- TVET providers (Public, Private, Pre-tertiary and Tertiary)
- Trade Associations (GNTDA, GHABA, NAHB, GESTA FEPTAG, GNAG etc.)
- Artisans' Associations
- Professional Bodies (GHIE & IET)
- Development Partners
- Industry (PEF, AGI, GEA & Ghana Chamber of Commerce)
- Civil Society Organisations (CSOs)
- Non-Governmental Organisations (NGOs)
- Community (Parents/Guardians, youth and children)

Figure 2.2 Major stakeholders in the TVET sector



Source: CTVET Construct, 2021

2.9 The Future of TVET

The 21st century comes with heavy demand for digital and technological skills. The Commission looks up to improving TVET sector in the following areas in the future:

a. Digitalization of all areas of life
b. Automation and robotization
c. Demographic changes
d. Formation of a network society
e. Globalization (economic, technological, and cultural)
f. Integrating Greening philosophies into TVET

The Commission has put in place a robust plan to ensure that Future Skills needs of the country are catered for alongside the current skills needs. Some of the interventions include:

- The establishment and commissioning of Sector Skills Bodies and the
- conduct of Skills Gap analysis and Audit of existing skills in ten trade areas.

These two strategies focus on exploring business opportunities, innovation, and capacity needs within the sectors for both present and future. The Commission is a member of the UNESCO-UNEVOC network and leverages on the expertise of this organization to inform and influence policies and decisions on future skills needs as well as global trends in TVET. Reports from organizations such as the ILO, World Economic Forum and WorldSkills International play key roles in the decisions taken regarding the future of TVET in Ghana.

Again, as already indicated, the Commission is a member of WorldSkills International and as such has access to WorldSkills Standards Specifications and other WorldSkills research materials which informs decisions on the future of TVET in Ghana. Among the identified future skills areas by WorldSkills are:

i. Additive Manufacturing
ii. Digital Factory
iii. Digital Capabilities for Business
iv. Drone Operating
v. Enterprise Information Systems Security
vi. Industrial Design Technology
vii. Industrial Robotics
viii. Building Information Modelling (BIM)
ix. Internet Marketing
x. Internet of Things
xi. IT Software Solutions for Business
xii. Life-Cycle Management
xiii. Mobile Application Development Machine Learning and Big Data
xiv. Manufacturing, Team Challenge (Maker)

xv. Quantum Technology, Robotic Welding

In this regard the Commission working through the WorldSkills Ghana experts and the Sector Skills Bodies in collaboration with training institutions keeps exploring ways to localize some of these skill areas and introduce the youth to them. Competitors from Ghana at WorldSkills Competitions and experts are also introduced to these skills through the WorldSkills platforms. The Commission is also taking steps to introduce greening philosophies and technologies across all TVET institutions and through curriculum development since the world is heading towards a green revolution with cleaner and more efficient use of natural resources being prioritized. With continuous exploration of oil and gas in Ghana, there is the need for the Country to turn attention to train the requisite manpower to meet the requirements of this sector. The Commission is partnering with the Petroleum Commission to establish the Institute of Welders in the Country and also partnering with them through the Sector Skills Bodies for Curriculum development, standard generation and other related issues.

According to the World Economic Forum (2020), there are a number of emerging as well as declining jobs which can be seen to be increasing or decreasing in demand. Among those jobs that are in high demand are: Data analysts and Scientists, AI and Machine Learning Specialists, Big Data Specialists, Digital Marketing and Strategy Specialists, Process Automation Specialists, Business Development Professionals, Digital Transformation Specialists, Information Security Analysts, Software and Applications Developers, Internet of Things Specialists, Project Managers, Business Services and Administration Managers, Database and Network Professionals, Robotics Engineers, Strategic Advisors, Management and Organization Analysts, FinTech Engineers, Mechanics and Machinery Repairs, Organizational Development Specialists and Risk Management Specialists.

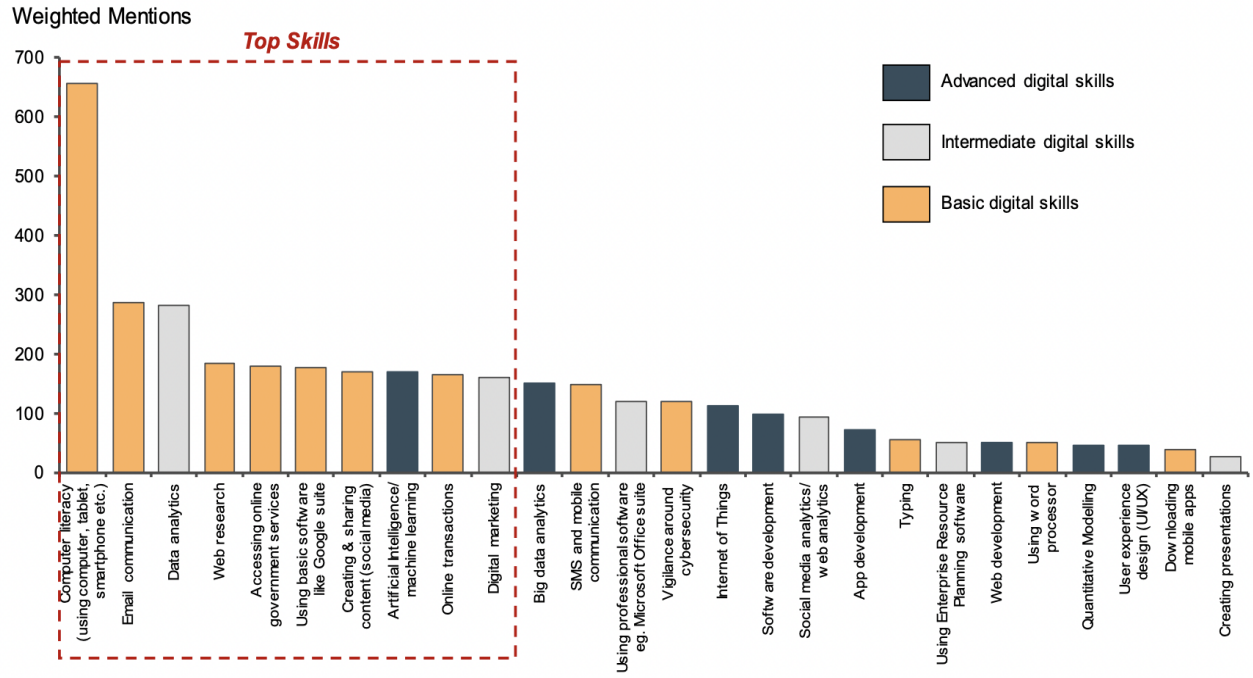
The areas that are of decreasing in demand also include: Data Entry Clerks, Administrative and Executive Secretaries, Accounting, Bookkeeping and Payroll Clerks, Accountants and Auditors, Assembly and Factory Workers, Business Services and Administration Managers, Client Information and Customer Service Workers, General and Operations Managers, Mechanics and Machinery Repairers, Material-Recording and Stock-Keeping Clerks, Financial Analysts, Postal Service Clerks, Sales Representatives, Relationship Managers, Bank Tellers and Related Clerks, Door-To-Door Sales, News and Street Vendors, Electronics and Telecoms Installers and Repairers and Human Resources Specialists, Training and Development Specialists and Construction Laborers.

Thus, TVET in Ghana needs to be responsive to these changing trends and demands so the Commission is addressing this through the establishment of the Sector Skills Bodies, Skills Gap Analysis and Audit of sectors, needs assessment of TVET Institutions and several other strategies. The general and international trends must be considered, evaluated and adapted to the context of the Ghanaian economy and industry.

2.9.1 The future of TVET Teaching

With the changing nature of jobs and requirements by industry, there is the need for TVET teaching and facilitation to also adapt to these demands. Facilitators/Teachers are at the frontline of TVET delivery and it is thus essential that they upskill and re-skill on future-oriented competencies in order to be able to pass them on to learners/students. That is why the government has established the Akenten Appiah Menka University of Skills Training and Entrepreneurial Development (AMUSTED) to be the premier training institution dedicated to training TVET teachers. This institution will also provide these TVET teachers with the opportunity to upskill themselves.

Figure 2.3: Future skills needs for TVET



Source: *International Finance Corporation (IFC) LEK Consulting. (2019) "Digital skills in Sub-Saharan Africa: spotlight on Ghana."*

Figure 2.3 identifies top 10 skills that address major skills challenges of today and of tomorrow. Computer Literacy that includes the use of computers, tablets, smart phones among others will influence work in profound ways. The International Centre for Technical and Vocational Education and Training (UNEVOC) asserts that "digitization is reshaping millions of jobs. To remain relevant to the changing world of work and attractive learners, there is a growing need for TVET teachers and trainers to understand the application of digital technologies, such as artificial intelligence, robotics, 3D-technologies, and augmented virtual reality, and to have up-to-date digital competencies". International Finance Corporation (IFC) LEK Consulting. (2019) "Digital skills in Sub-Saharan Africa: spotlight on Ghana".

Skills in Email Communication, Data Analytics, Web Research, Accessing Government Online Services, Using Basic Software like google suites, Creating and Sharing Contents (social media), Artificial Intelligence and Machine Learning, Online Transactions and Digital Marketing. The Commission for TVET is positioning itself as an agile and innovative state agency to drive this dream bearing in mind the uncontrollable scope of technology development. The Commission is empowering training institutions to improve their capacity to identify the future of work demands and to expand access to skills development opportunities.

CHAPTER III

ACCESS TO TVET

3.1 Introduction

This chapter presents information on equity and access to TVET within the Ghanaian context in line with Sustainable Development Goal 4 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 government of Ghana through policy dialogue and programmes in the TVET sector is making continues efforts to ensure that all youth and adults, including vulnerable and disadvantaged groups, have equal access to quality learning opportunities and skills development.

The efforts of the government to increase access to quality TVET is hinged on the fact that the development and economic wellbeing of the people depends on the ability of the country to provide relevant skills to all which includes the most vulnerable members of the societies and to offer them opportunities for professional fulfillment.

Over the years, there have been continuous efforts by governments to increase access to TVET education with the aim of equipping learners with employable and entrepreneurial skills. Some key national interventions being implemented to increase access in the TVET landscape include the establishment of the National Vocational Technical Training System, the Rural Enterprise Programme (REP) and the establishment of a Council for Vocational and Technical Education and Training (COTVET) under the Act 718 in 2006, NABPTEX, the Commission for Technical and Vocational Education and Training (CTVET) established under the new Education Regulatory Bodies Act, 2020 (Act 1023) and Free TVET. Other interventions include the implementation of the Ghana TVET Voucher Project and implementation of Recognition of Prior Learning (RPL).

Following the numerous interventions in place, enrolment into TVET institutions has steadily increased.

3.2 TVET at Pre-Tertiary Level

3.2.1 Pre-Tertiary TVET Providers

Technical and Vocational Education and Training have various institutions which are spread across the Sixteen (16) regions of Ghana. Ghana has both pre-tertiary and tertiary institutions. Table 3.1 shows the various categorizations of pre-tertiary TVET institutions in Ghana.

Table 3.1: TVET Providers at the Pre-Tertiary Level

#	CATEGORY OF TVET PROVIDER	NUMBER OF INSTITUTION
1	Government Technical Training Center (GTTC)	1
2	Roads and Highways Training Center	1
3	Farm Institute	3
4	Opportunity Industrialization Centers	3
5	Ghana Regional Appropriate Technology Industrial Service (GRATIS)	9
6	Youth Leadership and Skills training Institutes	10
7	Department of Social Welfare Voc. Training Institutes	16
8	Community Development Vocational Training Institutes	26
9	Rural Technology Facility	30
10	National Vocational Training Institute	34
11	Ghana Education Service	47
12	Integrated Community Centers for Employable Skills	58
13	**Total**	**238**

Source: Pre-Tertiary Education Act 1049

Integrated Community Centers for Employable Skills (ICCES) has about 24.4 % coverage making it the most widely spread TVET institution in Ghana. Ghana Education Service (GES) institutions have about 19.7 percent coverage out of the total 238 pre-tertiary training institution. As can be seen in sub-chapter 3.3.2, various Tertiary institutions also offer TVET programmes at pre-tertiary level.

3.2.2 Pre-Tertiary TVET Programmes

The list of all TVET pre-tertiary programmes that are on offer at the various training centers is presented in table 3.2. Most of the programmes span over different levels of the NTVETQF, e. g. ranging from National Proficiency I to National Certificate II (also refer to Chapter 6.3 for the programmes that were developed with SSBs).

Table 3.2: List of programmes at pre-tertiary institutions

1. Agric Mechanization Technology
2. Architectural Drafting
3. Autobody Repair
4. Automobile Engineering
5. Building Construction Technology
6. Computer Accounting
7. Computer Technology
8. Cosmetology
9. Creative Art Technology
10. Electrical Engineering Technology
11. Electrical Machine Rewinding
12. Electronics Engineering
13. Fashion Designing technology
14. Furniture Desig and Construction

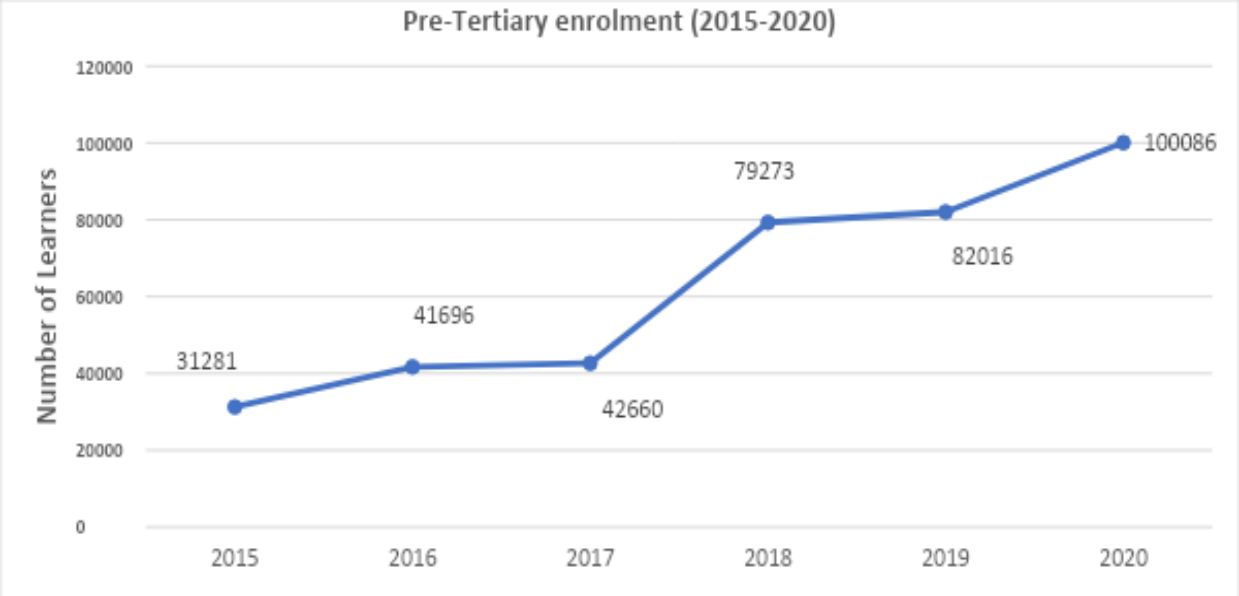
15. Heavy Duty Mechanics
16. Hospitality and Catering Management
17. Industrial Mechanics
18. Information Technology
19. Mechanical Engineering Technology
20. Motor Vehicle Engineering
21. Plumbing & Gas Fitting Technology
22. Printing
23. Refrigeration & Air-condition Tech.
24. Secretaryship: Accounting Option
25. Secretaryship: Secretarial Option
26. Small Engine Repair
27. Tailoring
28. Welding and Fabrication Technology
29. Wood Construction Technology

Source: CTVET Database, 2021

3.2.3 Public Pre-Tertiary TVET Enrolment between 2015 to 2020

Enrolment data in the public pre-tertiary training institutions between 2015 to 2020 show that student enrolment has seen a steady increase over the period under consideration. The increases are attributable to several interventions in the sector over the period. As of 2020, enrolment figures increased from 31,281 students in 2015 to 100,086 students in 2020 as indicated in figure 3.1.

Figure 3.1: Enrolment in pre-tertiary formal education in Government TVET Providers



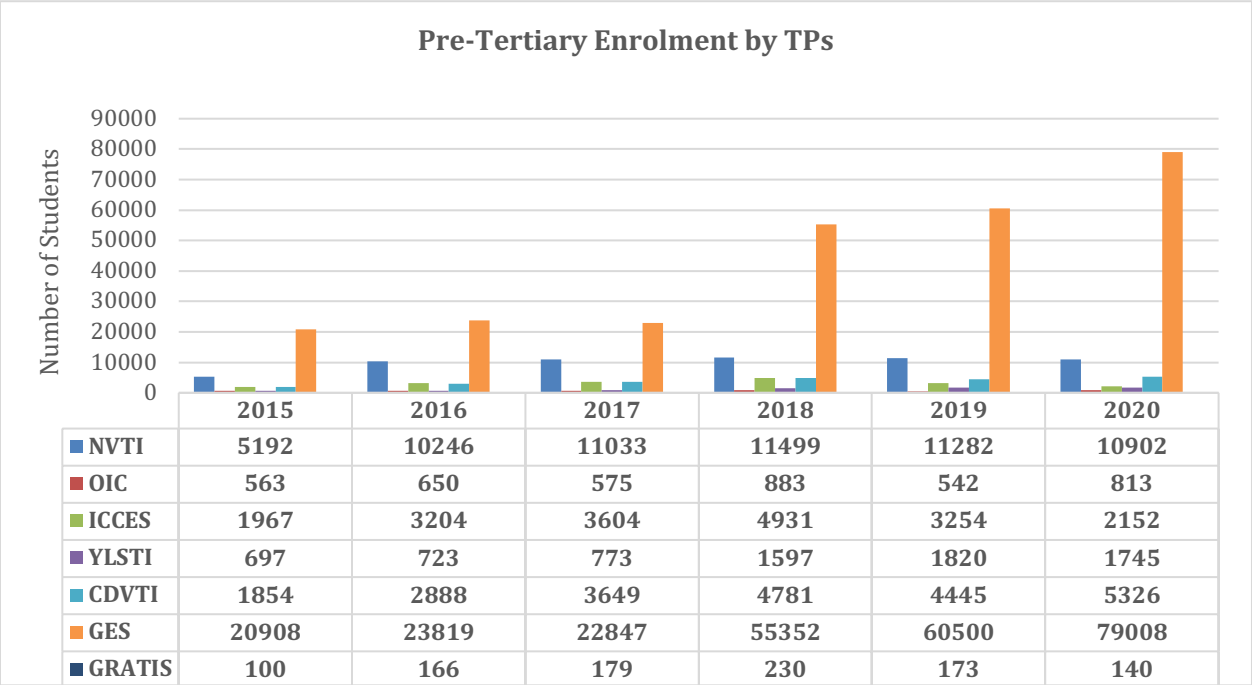
Source: MoE & CTVET database, 2021

3.2.4 Enrolment by various Pre-Tertiary TPs in Ghana

Figure 3.2 gives an overview of enrolment situations in the various types of the pre-tertiary institutions. The Ghana Education Service (GES) institutions have the highest enrolment figures over the period under review. Enrolment in the National Vocational training Institute (NVTI)

institutions doubled between 2015 and 2019, increasing from 5,192 in 2015 to 11,282 in 2019. The institution with the least enrolment is the Ghana Regional Appropriate Technology Industrial Service (GRATIS). Enrolment figures in GRATIS institutions range from 100 to 230 between 2015 and 2020 academic years. Integrated Community Centers for Employable Skills (ICCESS) and Community Development Vocational Technical Institute (CDVTI) are predominantly located in the rural communities and provide physical access to many students in their catchment areas.

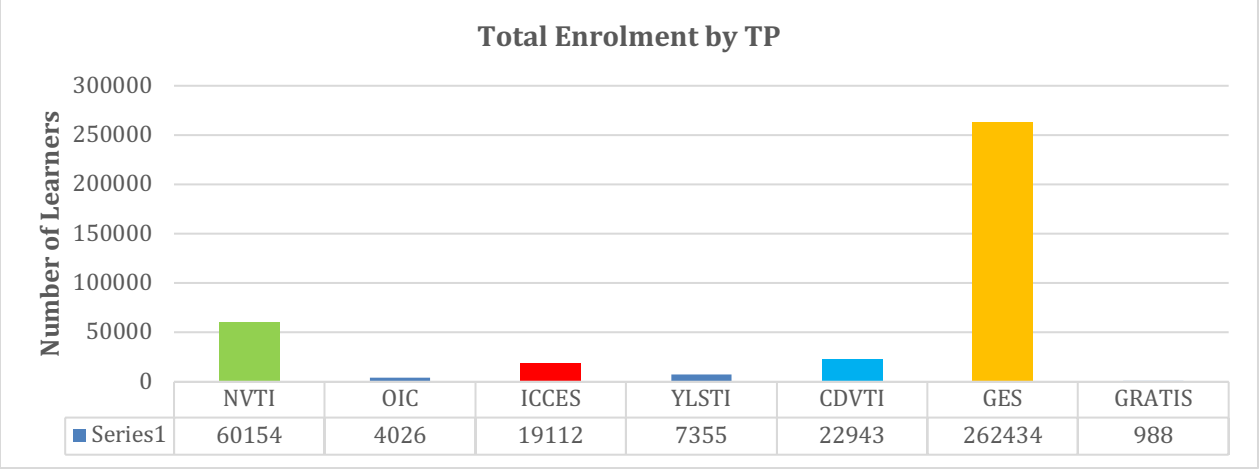
Figure 3.2: Pre-Tertiary Enrolments Across TPs



	2015	2016	2017	2018	2019	2020
NVTI	5192	10246	11033	11499	11282	10902
OIC	563	650	575	883	542	813
ICCES	1967	3204	3604	4931	3254	2152
YLSTI	697	723	773	1597	1820	1745
CDVTI	1854	2888	3649	4781	4445	5326
GES	20908	23819	22847	55352	60500	79008
GRATIS	100	166	179	230	173	140

Source: CTVET database, 2021

Figure 3.3: Total enrolment by category of TPs (2015 – 2020)



	NVTI	OIC	ICCES	YLSTI	CDVTI	GES	GRATIS
Series1	60154	4026	19112	7355	22943	262434	988

Source: CTVET database, 2021

The total figures reflect the annual enrolment per institution only (meaning that the enrolment does not equal the total number of students in the school during the academic year in reference). The data indicates that between 2015 and 2020, NVTI provided access to a total of 60,154 students whereas GES schools provided access to 262,434 students as indicated in figure 3.3. GRATIS on the other hand enrolled a total of 988 students between 2015 and 2020.

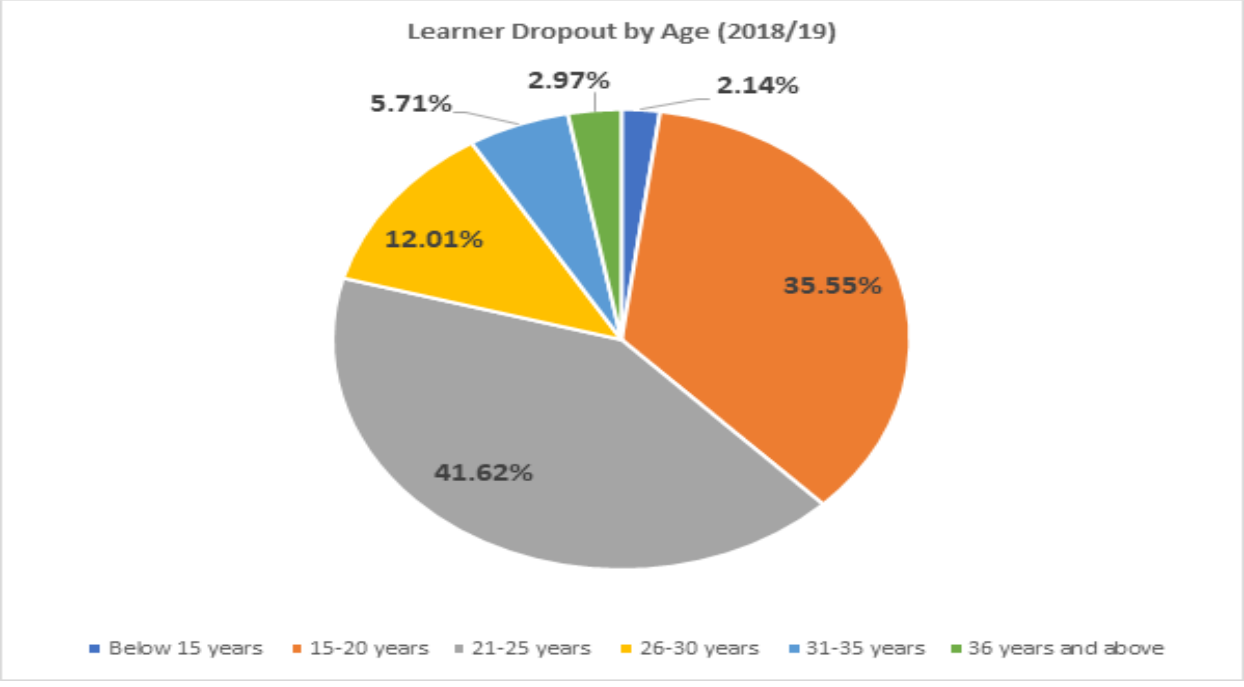
3.2.5 Learner dropout

Data from the survey of 85 TVET Institutions show that 841 learners representing 10.43% of learners who enroll into TVET institutions at the pre-tertiary level drop out of school. This was specific to the 2018/19 academic year.

The findings suggest that 77.17 % of learner dropout cases was recorded among age groups 15-25 in the 2018/19 academic year whereas those above 26 years constitute 20.69 %. Only 2.14 % of learners who dropped out were below age 15.

Figure 3.4 provides information on learner dropout by age categorization and statistics on ages below 15 years, and information on ages between 15-2 0years, 21-25years, 26-30 years, 31-35 years as well as 36years and above. The figure also shows that 2.4% of learners below 15years of age dropped out of school during the 2018/19 academic year. It demonstrates that 35.55% of learners between the ages of 15-20, 41.62% representing learners between 21-25years, 12% of learners between 26-30years, 5.71% of learners between the ages of 31-36 and 2.97% of learners above 36years also dropped out respectively.

Figure 3.4: Learner Dropout by Age



Source: CTVET Field Survey, 2021

3.2.6 Reasons for learner dropouts

The data suggests that majority (62.4%) of dropout cases were attributed to difficulty in paying fees. Gender issues (10.6%) and bereaved guardian (12.9%) also account for significant dropouts in the sampled institutions. Early marriage was also indicated by a number of training providers. Some of these findings reflect the cultural and economic background of most learners. It is interesting to note that some learners had early employment and therefore stopped schooling.

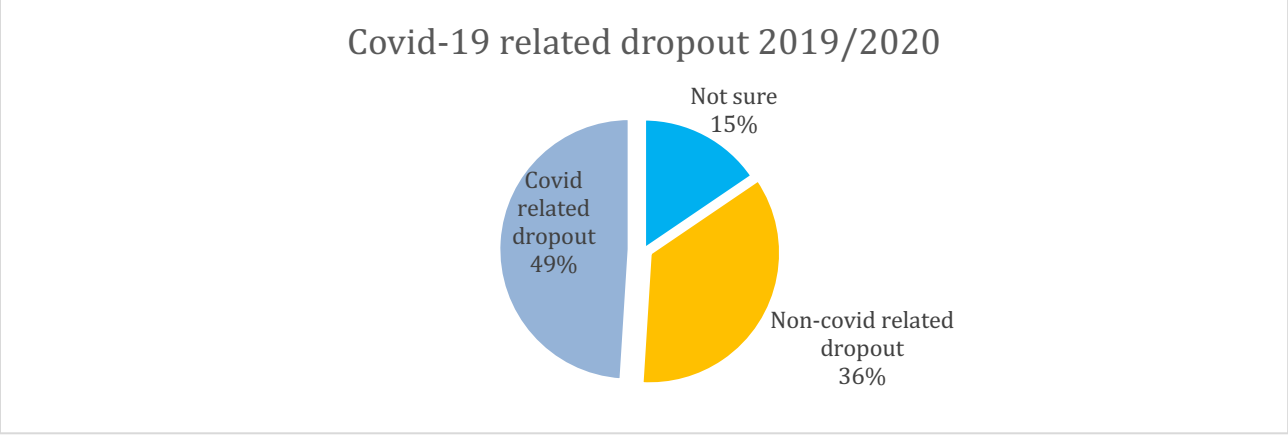
Table 3.3 Reasons for learner dropouts

Reason	Frequency	Valid Percent
Payment of fees	53	62
Bereaved guardian	11	13
Student found employment	3	4
Early marriage	2	2
Proximity of institution	5	6
Gender issues	9	11
Transfer of parent or guardian	2	2
Total	**85**	**100**

3.2.7 Impact of COVID-19 on learner dropout in 2019/2020 academic year

The result from the Commission's field survey indicates that the outbreak of the corona virus pandemic influenced learner dropout in their respective schools in the 2019/2020 academic year. It was revealed that about Eight-Hundred and Thirty (830) learners dropped out of the sampled training institutions due to the impact of COVID-19. About 50 % of the institutions that took part in the survey reported that COVID-19 contributed significantly to the dropout cases in the academic year as shown in figure 3.5.

Figure 3.5: Impact of Covid-19 on learner dropout in 2019/20



Source: CTVET Field Survey, 2021

Table 3.4: Student distribution per age (2018/19)

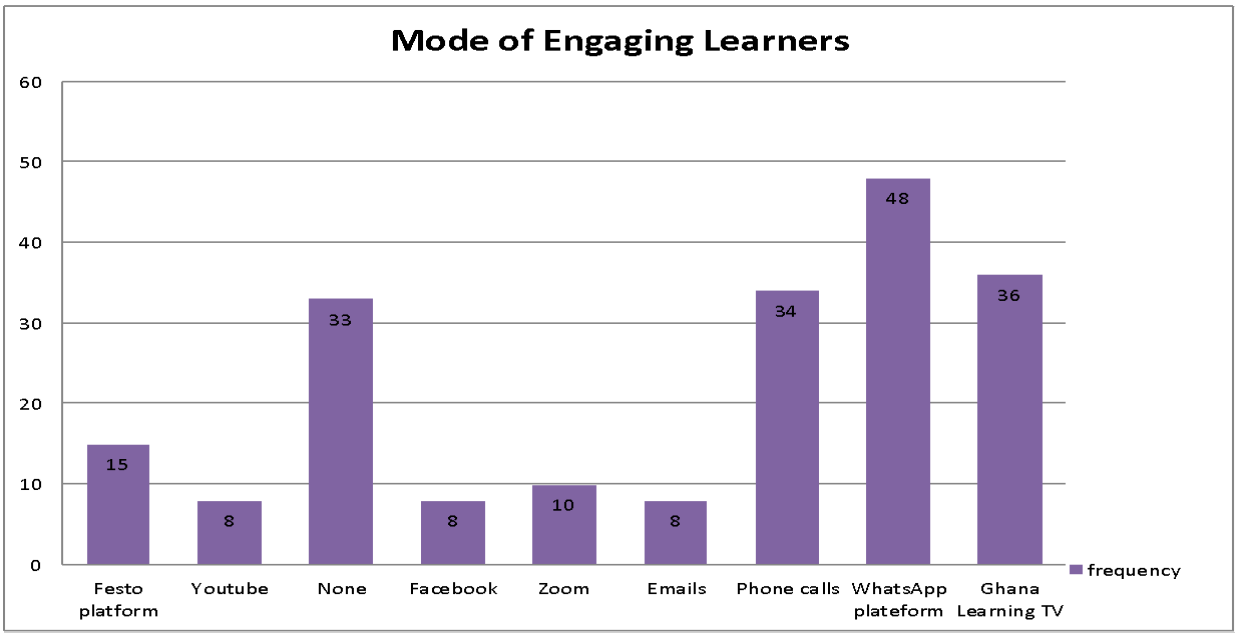
Age bracket	Below 15 years	15-20 years	21-25 years	26-30 years	31-35 years	36 years and above
Share of total student population	5,10%	40,33%	35,66%	11,89%	4,48%	2,54%

Source: CTVET Field Survey, 2021

3.2.8 Mode of engagement during COVID-19 lockdown of TVET Institutions

While training institutions were temporarily locked down in 2020 as part of the COVID-19 prevention strategies, The Commission for TVET facilitated the adaption of TVET providers to innovative ways to engage TVET learners. This was in line with the directive given by the Government on adapting innovative ways to achieve institutional targets. Over 10,000 Learners benefited from such engagements. Figure 3.6 indicate the modes of engagement adopted during the period.

Figure 3.6: Mode of engaging TVET Learners during Covid-19 lockdown

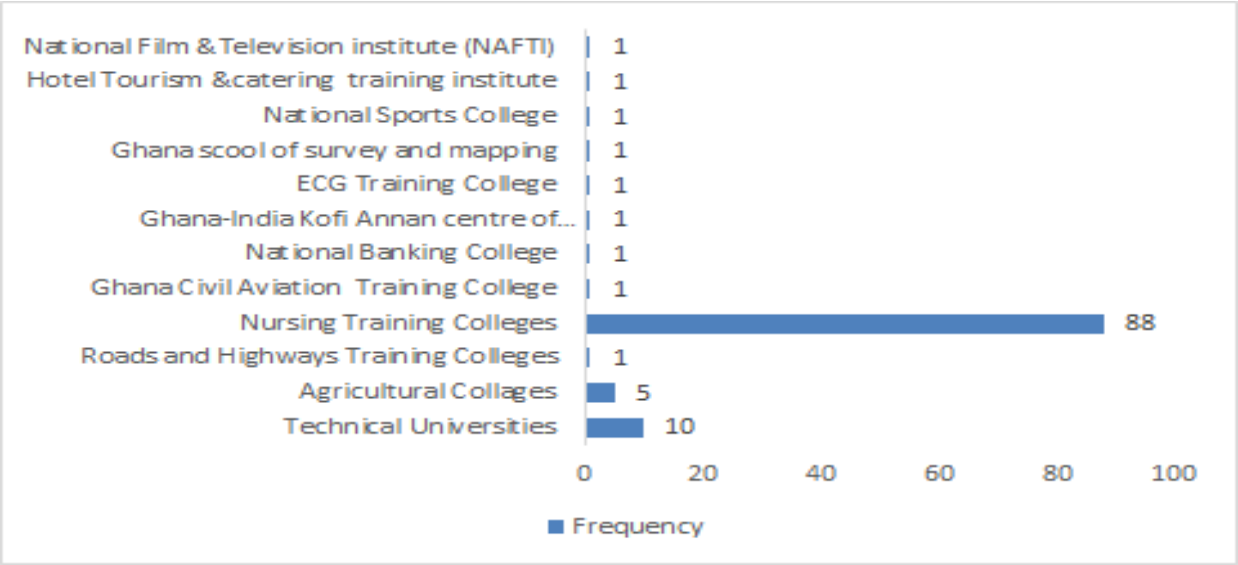


Source: CTVET Field Survey, 2021

3.3 TVET providers at the tertiary level

The TVET providers at the Tertiary level cut across several sectors with each category of providers focusing on specific sectors, with the exception of the Technical Universities that run disciplines across various sectors. Table 3.1 highlights the Tertiary TVET Providers. By their nomenclature, the sectors they focus on can be deducted.

Figure 3.7: Various Tertiary TVET Providers in Ghana



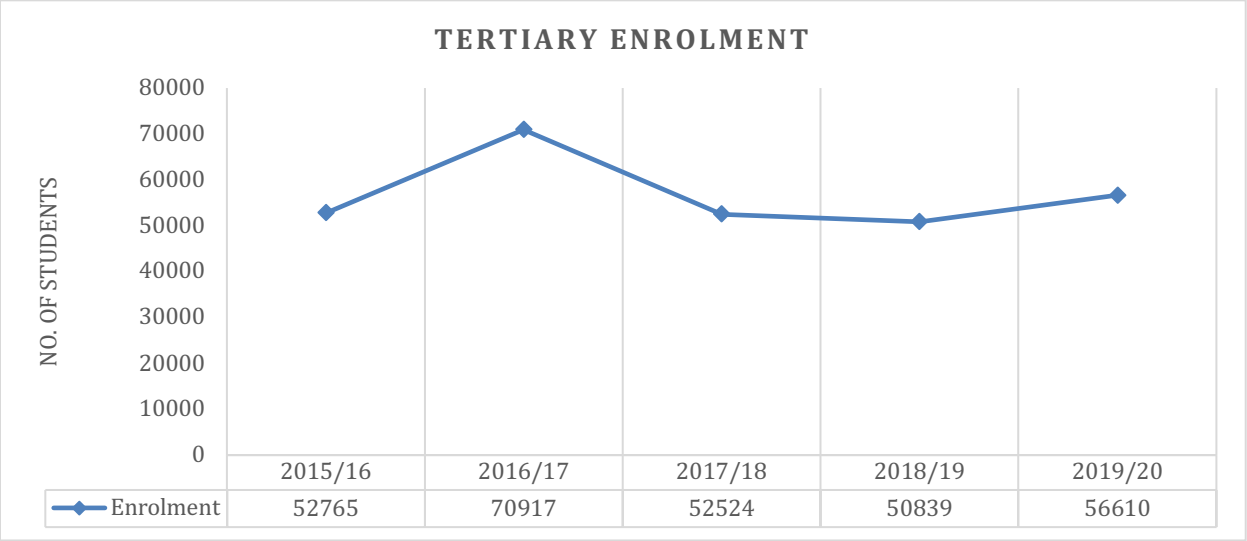
Source: CTVET Data base

The table above shows that Nursing Training Colleges are in the majority with 88 institutions whilst most of the others is only one.

3.4 Enrolment for Tertiary level TVET Institutions

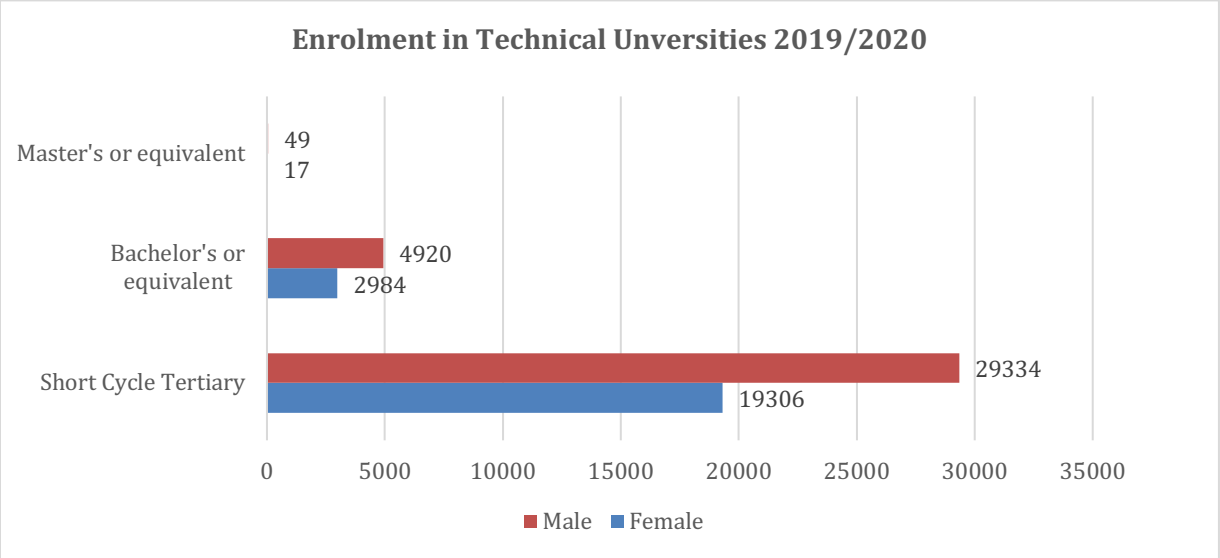
Figure 3.13 presents information on the tertiary enrolment between 2015/16 and 2019/20 academic years for all tertiary TVET providers in Ghana. The figure shows that the highest enrolment (70,917) within the period was recorded in 2016/17 academic year and declined between the years 2017/18 and 2018/19 academic years. Here, the enrolment figure dropped from 52,524 to 50,839 students, but has seen an increase again in the 2019/20 academic year to 56,610. The drop in enrollment was attributed to the transition of Polytechnics to Technical Universities which came with some uncertainty on the direction of Tertiary Level TVET.

Figure 3.8: Enrolment for TVET Tertiary Institutions (2015-2020)



Source: CTVET Construct from GTEC data, 2021

Figure 3.9: 2019/2020 Enrolment for the Technical Universities



Source: CTVET Construct from GTEC data, 2021

3.4.1 Tertiary Institutions Issuing certification on the NTVETQF

Table 3.4 presents data on accredited tertiary institutions that are issuing certification on the NTVETQF at levels 1 to 4 and the programmes that are run by the institutions. The Technical Universities HND, B. Tech and M. Tech. qualifications. CBT Programmes are currently being developed at these levels to be issued on the NTVETQF.

Table 3.5: Tertiary Institutions issuing certification on the NTVETQF

#	Tertiary Institution	Accredited pre-tertiary programmes	NTVETQF Level			
			NP I	NP II	NC I	NC II
1	Kumasi Institute of Tropical Agriculture	Pineapple and Citrus Value Chains			✓	✓
2	Presbyterian Centre for Vocational Instructors Development (PRECEVID)	Catering and Hospitality Management			✓	
3	Accra Institute of Technology (AIT)	Electronic Engineering Technology	✓	✓	✓	✓
		Welding and Fabrication			✓	✓
		Automotive Engineering			✓	
4	Ghana Atomic Energy Commission	Welding and Fabrication	✓			
		Electronics Engineering Technology	✓	✓		
5	BlueCrest College	Garment Making	✓	✓		
		Fashion Design Technology			✓	
		Electronics Engineering	✓			
6	Tamale Technical University	Cosmetology	✓	✓	✓	✓
		Automotive Engineering	✓	✓	✓	
		Electronic Engineering	✓	✓	✓	✓
		Welding and Fabrication	✓	✓	✓	✓
		Garment Making	✓	✓		
		Fashion Design Technology			✓	
		Catering and Hospitality Management			✓	
		Mechanical Engineering	✓	✓	✓	✓

		Electrical Engineering	✓	✓	✓	
7	Ho Technical University	Garment Making	✓			
		Cosmetology	✓			
		Electronics	✓			
8	Perez University College	Garment Making	✓	✓		
		Fashion Design Technology			✓	
9	Shiv-India Institute of Management and Technology	Electronics Engineering Technology	✓	✓		
		Garment Making	✓	✓		
10	Kumasi Technical University	Garment Making	✓	✓		
		Automotive Engineering Technology	✓	✓		
		Electronics Engineering Technology	✓	✓		
		Welding and Fabrication	✓	✓		
11	Akenten Appiah Menka University of Skills Training and Entrepreneurial Development (AAMUSTED)	Garment Making	✓	✓		
		Catering and Hospitality Management			✓	
		Electronics Engineering Technology	✓	✓		
		Automotive Engineering Technology	✓	✓		
12	CSIR-Institute of Industrial Research	Electronics Engineering Technology	✓	✓		
		Cosmetology	✓	✓		
13	Bolgatanga Technical University	Garment Making	✓	✓		
		Automotive Engineering Technology	✓	✓		
14		Oil Palm Value Chain		✓	✓	✓

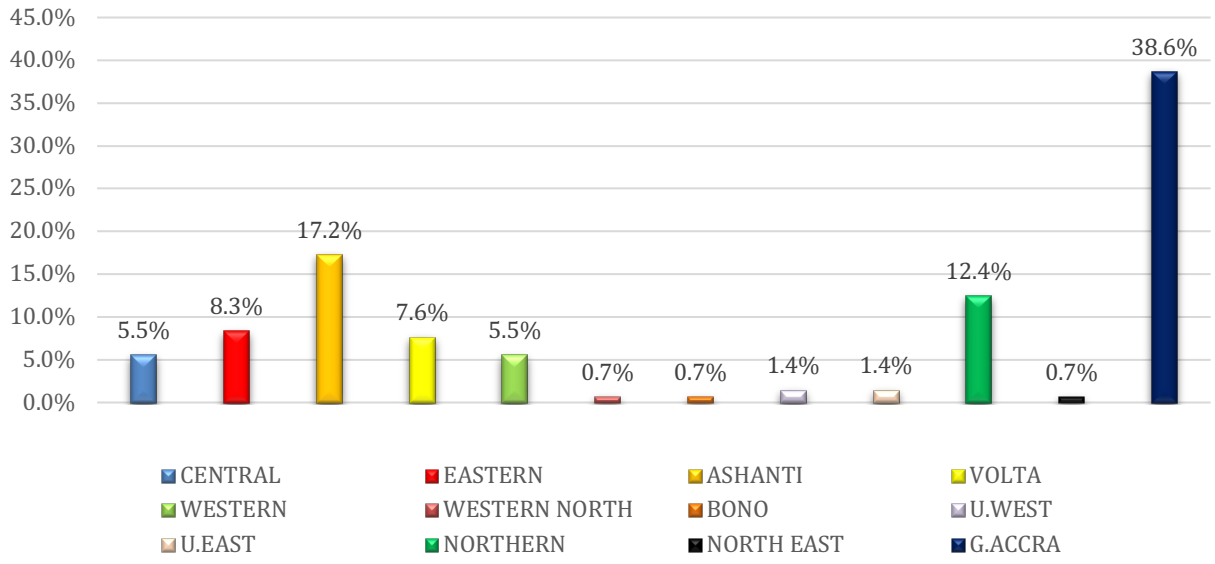
	University College of Agriculture & Environmental Studies	Mango Value Chain	✓	✓		
15	Kumasi Tropical Institute of Agriculture (KITA)	Cashew Value Chain	✓	✓		
		Oil Palm Value Chain			✓	✓

Source: CTVET field data, 2021

3.5 Accredited TVET Institutions

Greater Accra Region has the highest number of accredited institutions, that is 56, representing 38.6 % out of the 183 accredited TVET providers. The Ashanti Region is the second highest region with 25 accredited institutions representing 17.2%. Northern Region has 18 institutions representing 12.4 %. Bono, Western North and North East are among the regions with the least accredited TVET institutions. As of June 2021, no institution had been accredited in the Oti, Bono East, Ahafo and Savannah Regions.

Figure 3.10: Distribution of accredited TVET Institutions



Source: CTVET database, 2021

3.6 Certificates offered by Training Providers on the NTVETQF

The National TVET Qualification Framework offers TVET learners an opportunity to progress along the qualification levels. The NTVETQF has eight levels starting from National Proficiency I (NP I) to Doctor of Technology (D.Tech). The framework is tailored on Competency-Based Training (CBT) method for skill development. So far, four levels of the NTVETQF are operational.

These are National Proficiency I & II and National Certificate I & II. As at December, 2021, the accredited institutions that run programmes in NP I to NC II on the qualification framework was 183. The Commission is working to accredit the remaining institutions at all levels as and when request for accreditation is received.

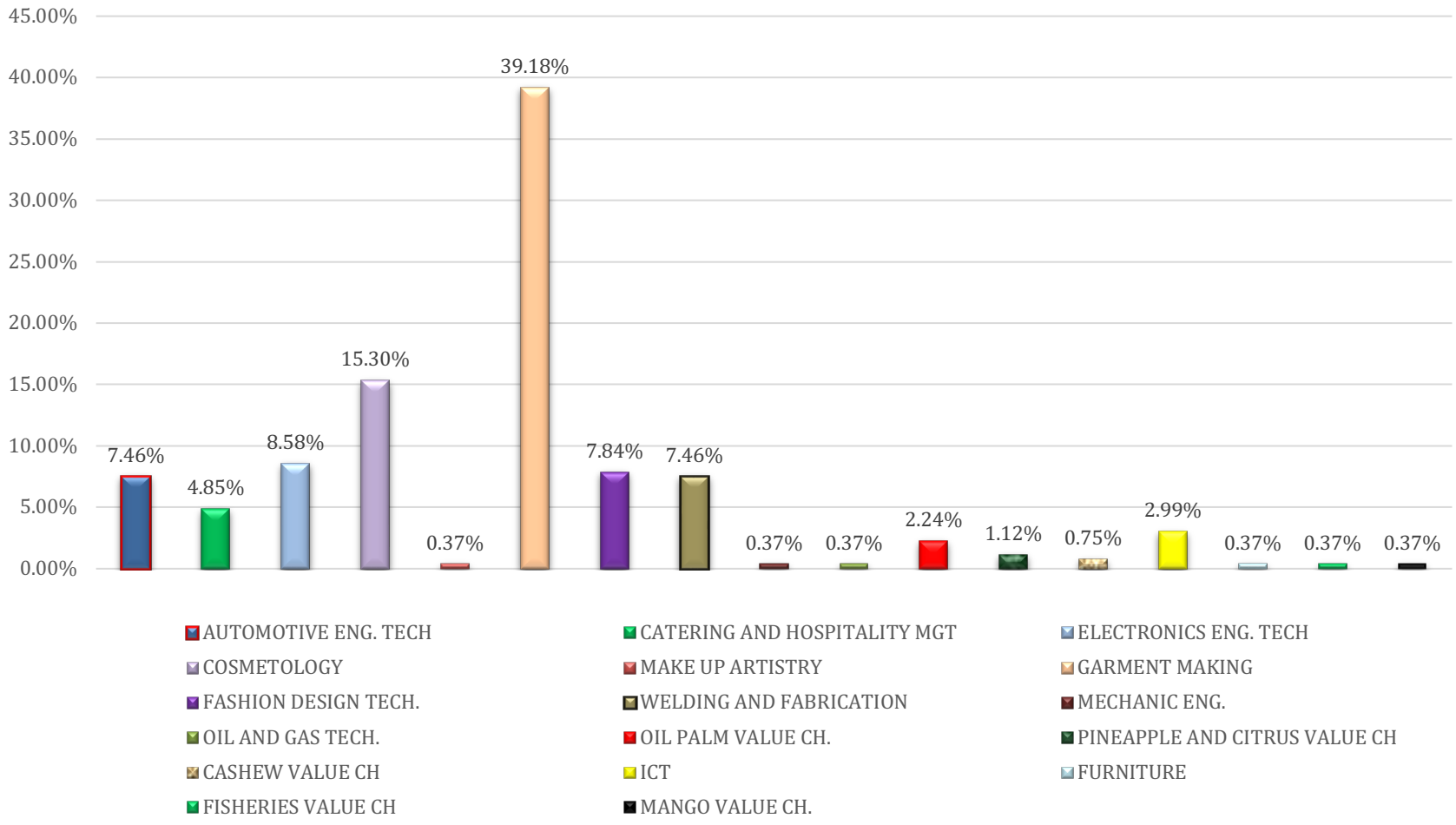
Out of the 183 accredited institutions, 47.75 percent run programmes in NP I, 26.71 percent run programmes in NP II and 19.86 percent do NC I. About 5.67 percent of the institutions run programmes in NC II as of June 2021 as indicated in figure 3.7.

Based on the field survey CTVET conducted among 85 TPs one can see that most TPs (78%) offer training programmes targeting at National Proficiency Level I, while the higher the certificate, the lower the share of TPs offering the respective qualification.

3.7 CBT Programmes offered by TPs

The Commission for TVET is supporting training providers to convert the traditional curricula into CBT modules. The initiative is to strengthen the competencies of learners in the national skills development agenda. In a survey conducted by the Commission, it was revealed that a number of the training providers have begun the implementation of CBT programmes in various trade areas. The result of the study shows that out of the 85 training providers sampled, 39.18 % of the Institutions offer CBT programme in Garment making. About 7.46 % offer CBT programmes in Welding and fabrication as well as Automotive Engineering Technology. Additionally, about 0.37 % of the training providers are currently providing CBT programme in Wood Technology, Catering and Hospitality Management, Mango Value Chain and Oil and Gas Technology. Details on the CBT programmes on offer is presented in figure 3.8.

Figure 3.11: CBT Programmes offered by TPs



Source: CTVET field survey, 2021

3.8 Interventions to improve equity and access in TVET

3.8.1 Implementation of Career Guidance and Counselling Project

Judging from the potentials that TVET provides to learners, a lot of efforts are made to introduce Career Guidance and Counselling (CG&C) in our Basic Schools. CG&C provides a guide to Junior High School Students in their selection of schools for further education and career development. CG&C also seeks to encourage the girl child to enter "male-dominated" skills areas and professions, improve the perception of technical and vocational education among the youth and increase enrolment into TVET institutions among others. The primary goal of the project is to provide career guidance and counselling to Junior High School students and youths in Ghana, provide learners with varieties of skills and various career opportunities available.

To achieve the objectives of the project, the Commission for TVET developed and distributed 17,000 manuals and facilitator guides to 101 pilot schools in 2020. In all, a total of 27,757 JHS learners have enrolled on the TVET Career Guidance and Counseling project in Ghana. The CG&C manuals are in the following modules:

Module 01 - Hospitality related careers
Module 02 - Information and communication technology careers
Module 03 - Entertainment related careers
Module 04 - Fashion and related careers
Module 05 - Transportation, processing and related careers
Module 06 - Handicraft and related careers
Module 07 - Metal, machinery & automobile repairing careers
Module 08 - General engineering and technical careers
Module 09 - Agricultural and related careers
Module 10 - Built environment and related careers

3.8.2 Expanding access to TVET in the informal sector

The Commission through the Ghana TVET Voucher Project (GTVP) is expanding access to TVET in the informal sector. The Voucher project is implemented in collaboration with the German Government and its development organization KfW.

This project provides training vouchers to CTVET registered master craft persons, their apprentices, and workers. Target groups are owners of small and medium scale enterprises of the informal sector as well as their workers and apprentices. Currently, the project is implemented in nine trade areas. These are:

a) Beauty / Cosmetics (Cosmetology)
b) Consumer Electronics
c) Automotive repair

d) Building Construction (Welding)
e) Garment / tailoring/ dressmaking
f) Plumbing Furniture making
g) Electrical installation
h) Block laying and tiling
i) Catering and hospitality

The GTVP is operational in eleven (11) out of the sixteen (16) regions in Ghana. The beneficiary regions are: Greater Accra, Ashanti, Northern, Volta, Western, Central, Eastern, Western North, Savanna, Oti and North East. The project is implemented in 160 centers involving 98 training institutions. The Technical Examinations Unit is responsible for the award of certificates.

The GTVP through Ministry of Education and CTVET has contributed the Government of Ghana TVET reforms agenda for national development in following areas as recorded in the Project Review, March 2021; and Tracer Studies 2018, 2019 and 2021**:**

- Led to large scale CBT implementation including RPL in the country

- GTVP is highly appreciated for its relevance and outreach (improving access and skills upgrading) with very positive feedbacks from all stakeholders (Review Report of GTVP Phase I and II, March 2021)

- Relevance of GTVP to the needs of persons working in the informal sector has been confirmed by various sources/stakeholders (Review Report of GTVP Phase I and II, March 2021)

- Improvement in registration and accreditation of TVET stakeholders (TPs, TAs, facilitators, external verifiers, etc.).

- Improved IT database at CTVET (Voucher Management System and Digitization of registration & accreditation processes). This has created a huge reliable database on TVET stakeholders (Training Providers, Trade Associations, Training Coordinators, Facilitators, Verifiers, Assessors, External Verifiers, Awarding Body) which can be accessed and updated anytime.

- GTVP has encouraged both public and particularly private sector players to venture into TVET delivery which has increased a substantial number of accredited TPs and CBT roll-out

- GTVP has contributed to improvement in the working condition and income situation and indirect job creation (Tracer Studies 2018, 2019 and 2021; and Project Review March 2021).

- Strengthen Trade associations and improved their service delivery and income generation. MCPs offering quality services, getting new contracts and employing additional hands

- TPs have upgraded their workshops and offering higher quality training, reputation improved in the region

- Determination of cost delivering of various CBT programme on both full qualification and unitized basis based on a full cost calculation developed by CTVET with the support of relevant stakeholders.

3.8.3 Inclusive TVET

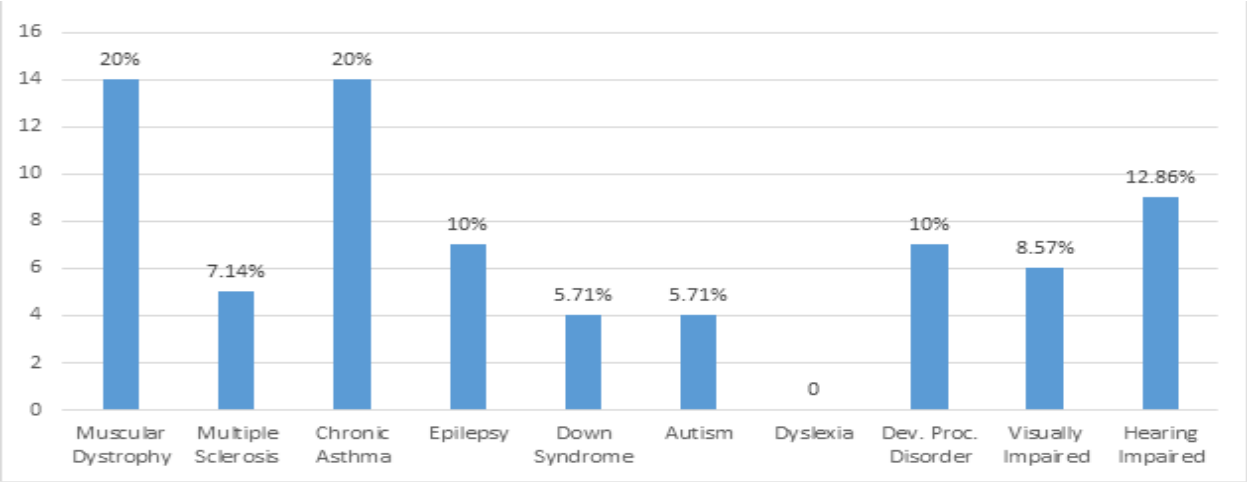
In 2006, Persons with Disability Act (715, 2006) was enacted and in 2012 Ghana ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). This act introduces, among other provisions, the right of persons with disabilities to take part in social, political, economic and creative or recreational activities. These legal provisions set the background to promote inclusive education across all sectors for all manner of persons including Persons Living with Disability (PLWD).

In the light of the national and international commitments to promoting the rights of PLWD, three (3) different sets of training institutions were provided to support the visually impaired, hearing impaired and intellectually disabled persons.

In total, about 28 institutions are dedicated for PLWDs. Out of the total special schools, Jachie Skills Training Center for the Disabled is the only institution solely dedicated to the provision of TVET for persons with disability. However, following the Ministry of Education's directive on provision of disability friendly infrastructure in all training institutions, most learners with disability prefer to enroll in traditional training institutions other than those dedicated for PLWDs.

In addition, efforts have been made by the Commission to make TVET accessible to PLWDs. Part of the efforts is to ensure that all workshops, lecture halls and public facilities within the training institutions meet the disability friendly criteria. A set of indicators are used to ensure that institutions comply with the regulations.

Figure 3.13: Special Needs Identified in TVET Institutions



Source: CTVET Field Survey, 2021

Special needs identified in TVET institutions are analysed in figure 3.15. About 38% of the institutions reported that they have students with special needs. About 20 % of institutions that were interviewed reported that they have learners with muscular dystrophy as well as chronic asthma. About 12.86 % of training providers reported on learners with hearing impairment making it the most common type of sensory impairment whereas close to 6 % of training providers reported cases of down syndrome, same as autism. No cases of dyslexia were recorded within the reporting period. The survey shows that also among the regular student population, learners with special needs exist and require additional attention and resources.

CHAPTER IV

QUALITY TVET DELIVERY SYSTEM

4.0 Introduction

Among the many challenges facing the TVET sector are the non-adherence to set standards for training delivery, competency-based training, and quality assurance practices. Another major concern is inadequate funding for the sector. In addressing many of these challenges, the Commission for TVET has put in place mechanisms to ensure quality TVET delivery system in Ghana. Part of the reforms are to help improve annual enrolment, competencies, and completion.

In line with the above, the Government of Ghana with support from other Development Partners is retooling several training institutions. Under the restructuring, government is providing state-of the art infrastructure which eventually will drive innovation in the modes of facilitation, learning approaches and assessment methods. Skills and human capital development is the focal role of the Ministry of Education. Since 1990 a lot of investments have progressively been made to revamp the sector.

One major stride towards quality TVET delivery is the improved collaboration between training providers and industry through the establishment of Sector Skills Bodies. The collaboration is aimed to ensure that the skills and knowledge obtained through education and training would be relevant to the needs of industry, commerce, and the community at large. A lot more training institutions have been accredited to offer advanced technical and vocational education and training programmes. Alongside the expansion in the provision of training infrastructure, the Commission for TVET is providing capacity building for TVET facilitators under different training modules. The Commission remains committed to convert all curricular into Competency-Based Training (CBT). Other policies such as the implementation of the Workplace Experience Learning (WEL), Recognition of Prior Learning (RPL) and the recognition of the new National TVET Qualifications Framework (NTVETQF) are among the many strategies to ensure quality in TVET delivery system in Ghana.

4.1 Interventions to achieve quality in TVET Delivery

Several interventions have been undertaken to achieve quality TVET delivery. These include strengthening the implementation of CBT and Work Place Experience Learning.

4.1.1 Competency-Based Training (CBT)

Competency-Based Training (CBT) is an outcome-based education and training where the learner is educated and trained based on demonstrated ability (occupational standards) rather than on t`hat of elapsed time. In line with international best practices, CBT curriculum, assessment tools, and

learning materials are designed and developed with input from Industry. The concept of CBT is focused on the individual learner rather than at a group, and each individual terminates education and training when he or she is competent, but not necessarily when stipulated programme duration is over.

CBT is used to achieve quality in TVET because it set-out clear standards which can be measured, help to develop competent individuals with transferable skills and link education and training to skills needed by employees. It also seeks to provide an objective quality assured system which will have the confidence of all users, promote lifelong learning, and fully develop individual learner's potential that can quickly respond to change.

4.1.2 Workplace Experience Learning (WEL) Policy

Workplace Experience Learning (WEL) is on the job training during which a learner is expected to master a set of skills or competencies related to a programme accredited by the Commission for Technical and Vocational Education and Training.

The Commission, through the TVET Policy Framework, has determined that workplace experience learning is an appropriate and valuable component of all TVET programmes undertaken by training providers. It complements the training undertaken by registered training providers. It provides an opportunity for enhanced skill development, practical application of industry knowledge, increased employment opportunity and a platform for empowering the learners to confidently enter the world of work.

4.2 Methods adapted for Practical skills training

Figure 4.1: Methods for skills training applied by TPs (multiple selections)

Source: Commission for TVET field survey, 2021

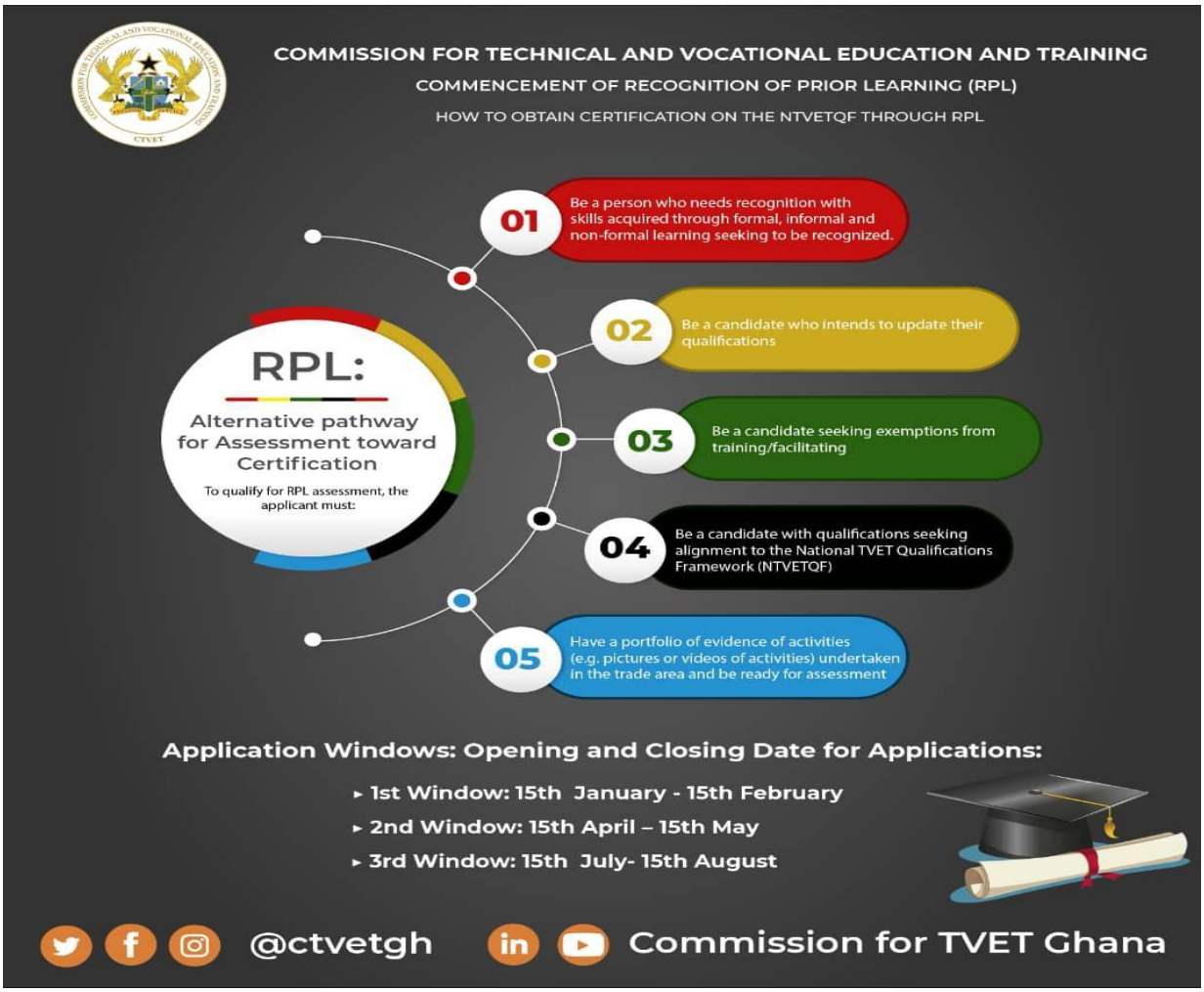
The practical skills development methods adopted by training providers include the Workplace Experience Learning (WEL), Apprenticeship and on the job training. In a survey conducted by the Commission in 2021, it was identified that about 84.71 % of training providers implement the WEL to help learners acquire practical skills from industry. Whereas about 72.94 % of the training providers indicated that they provide practical skills training for learners on-site (through project works and group assignments), 57.65 % indicated that learners acquire practical experience through various forms of apprenticeship as shown in figure 4.1. The question on practical skills development methods, allows for multiple responses. Future analysis and evaluation should look at the quality of WEL and other practical training as well as their results.

4.2.1 Recognition of Prior Learning

Prior learning is knowledge or skills acquired in earlier study and work or through experience. Recognition of prior learning (RPL) is a process of identifying, documenting, assessing, and certifying formal, non-formal and informal learning outcomes against standards used in formal education and training (ILO RPL Learning Package 2018). Thus, RPL provides an opportunity for people to acquire qualifications or credits towards a qualification or exemptions (from all or part of the curriculum, or even exemption from an academic prerequisite for entering a formal study programme) without going through a formal education or training programme.

The Commission has developed Recognition of Prior Learning in collaboration with the GIZ, Ghana Skills Development Initiative (GSDI) IV and designed to evaluate prior skills and knowledge acquired through formal and non-formal learning; against pre-determined qualification standards to formally recognize them. The programme opens in three windows a year. The first window opens from 15th January to 15th February. The second window opens from 15th April to 15th May and the 3rd Window opens from 15th July to 15th August each year. In 2021, the Commission used the first and second windows to complete processes on administrative and technical documentations as well as training and stakeholder engagement activities for training partners, trade associations etc. The third window was opened on the set date and people who need recognition with skills acquired through formal, informal and non-formal learning would apply. Applicants must be candidates who wish to update their qualifications or seeking exceptions from training/facilitation or candidates with qualifications seeking alignment to the National TVET Qualification Framework (NTVETQF). Finally, such candidates should have a portfolio of evidence of activities (e.g pictures or videos of activities) undertaken in the trade area and be ready for assessment.

Figure 4.2 Alternative Pathway for Assessment towards Certification (RPL)



Source: Commission for TVET 2021 RPL programme

4.2.2 National TVET Qualification Framework

The National Technical and Vocational Education and Training Qualifications Framework (NTVETQF) was launched on 23 October 2012 following the passage of LI 2195 under the Council for Technical and Vocational Education and Training (COTVET) Act on 3 September 2012. The eight-level framework is tailored to the present realities of the Ghanaian education system and labour force. Its qualifications are designed to merge seamlessly with Ghana's existing qualifications, whilst also providing the improvement and modernization necessary to take Ghana's education system into the future. Validation of informal and non-formal learning is a key component of Ghana's lifelong learning strategy.

4.2.3 Levels, descriptors and the use of learning outcomes

The quality assurance framework is a set of principles, guidelines, tools, and standards that guide the consistent application of quality assurance activities. The Education Strategic Plan (ESP 2018-2030), National TVET Strategic Plans, and the Education Regulatory Bodies Act, 2020 (Act 1023) provide the basis for the National TVET Qualification Framework (NTVETQF). The NTVETQF is an eight-level framework from Proficiency 1 to Doctor of Technology. The VET qualifications are developed and classified according to a set of specified indicators at each level based on the learning outcomes. The framework also classifies the recognition of skills, knowledge, and competencies along the progression paths. Table 5.1 gives further information on the level, qualification, and precondition for the NTVETQF. Currently over eleven thousand learners have been issued with certificates on the NTVETQF.

The NTVETQF provides reference point for quality assurance, improves the quality of qualifications, improves quality of education and training, promotes competency-based learning and assessment, supports lifelong learning by aiding access participation and progression and making the qualification system transparent. Below is a table of the NTVETQF

Table 4.1: NTVETQF

LEVEL	QUALIFICATION	STATUS	CERTIFYING INSTITUTIONS
8	Doctor of Technology	Formal	Universities
7	Master of Technology	Formal	Universities
6	Bachelor of Technology	Formal	Universities
5	Higher National Diploma	Formal	Universities
4	National Certificate II	Formal	GES/TVET Institutions
3	National Certificate I	Formal	GES/TVET Institutions
2	National Proficiency II	Formal/Non-Formal	NVTI/Formal Trade Associations
1	National Proficiency I	Formal/Non-Formal	NVTI/Formal Trade Associations

Source: Adapted from the COTVET Legislative Instrument LI 2195 (2012)

National Proficiency I

The National Proficiency I is a bridging programme, allowing progression for people with minimal or no education background into the National Proficiency II Programme. The National Proficiency I programme focuses on the basic skills, knowledge and understanding within the Technical /Vocational area.

Required tasks

Recruits into industry can perform routine and predictable tasks often performed under close supervision. Entry into these programmes normally requires no formal certificate. The programme helps the learner to prepare and facilitate his/her progression into the general education band through introduction to Generic Skills Units.

National Proficiency II

The National Proficiency II Programme allows progression to the National Certificate I Programmes and provides a window of opportunity to technical institutions entrance for appropriate technical/vocational areas. Entry into the National Proficiency II Programme will be through an achievement of COTVET qualification at National Proficiency I level.

Required tasks

Recruits into industry will be able to perform a range of varied work activities most of which may be routine, predictable, and non-complex in nature. The individual will work under limited supervision. It will also facilitate progression to National Certificate I and introduction to general education through Generic Skills Units.

National Certificate I

The National Certificate I programme allows progression to the National Certificate II Programmes and provides a window of opportunity to technical institution entrance for the appropriate technical/vocational areas. Entry into the National Certificate I programme is through National Proficiency II Level or a pass at BECE in the appropriate subjects and or an equivalent.

Required tasks

Recruits into industry will be able to perform complex and varied activities under minimum supervision and develop employable skills through significant workplace experience learning, thus enhancing their employment prospects.

National Certificate II

The National Certificate II Programme allows progression to the HND or Bachelor of Technology programmes and offers a window of opportunity to technical/vocational institution entrance for appropriate technical/vocational areas. Entry into the National Certificate II programme is through a National Certificate I level, or a pass at WASSCE in the appropriate subjects and points total or an equivalent.

Required tasks

Recruits into industry will be able to perform wide variety of work, most of which are complex and non-routine. There is considerable responsibility and autonomy in the performance of work, and ability to control or give guidance to others is often required.

Higher National Diploma (HND)

The HND programme allows progression to the Bachelor of Technology (B. Tech) or Master of Technology (M. Tech) programmes and delivers a window of opportunity to technical/vocational institution entrance for the appropriate technical/vocational areas. Entry into the HND programmes is through a National Certificate II Level, or a pass at WASSCE in appropriate subjects and points total or an equivalent.

Required tasks

Recruits into industry can perform wide variety of work, most of which are complex and non-routine. Work activities comprise tasks involving some level of organizational ability, resource management, and accountability for performing own processes and outputs as well as accountability for the processes and outputs of others.

Bachelor of Technology (B. TECH)

The B. Tech Programme allows progression to the Master of Technology programme and will provide a window of opportunity to technical/vocational institution entrance for the appropriate technical/vocational areas. Entry into the Bachelor of Technology programme is through a CTVET National Certificate II or HND Level, or equivalent qualification in the appropriate subjects and points.

Required tasks

Recruits into industry can perform wide variety of work, most of which are complex and non-routine. Activities are mainly self-directed, requiring a significant degree of strategic thinking and judgement. A high level of organizational and resource management skills is required, and the

individual assumes full accountability for own processes and outputs as well as the processes and outputs of others within broadly defined boundaries.

Master of Technology (M. TECH)

The Master of Technology programme allows progression to the Doctor of Technology programmes and affords a window of opportunity to technical/vocational institution entrance for appropriate technical/vocational areas. Entry into the M. Tech Programme is through a CTVET HND or Bachelor of Technology level, or equivalent qualification in the appropriate subjects and points.

Required tasks

Recruits into industry can perform wide variety of work, most of which involve the resolution of complex issues and making sound judgment in the absence of complex data and communicating these conclusions to both specialist and non-specialist audiences. They also continue to advance their knowledge and understanding and to develop new skills to a high level. The M. Tech Programme requires self-direction and originality in tackling and solving problems and acting independently in planning and implementing tasks at a professional level. It promotes quality and transferable skills necessary for employment, initiative and personal responsibility and decision-making in complex and unpredictable situations, and the exhibition of independent learning ability required for continuos professional development.

Doctor of Technology (D. TECH)

The Master of Technology programme allows progression to the Doctor of Technology programme and provides a window of opportunity to technical/vocational institution entrance for appropriate technical/vocational areas. Entry into the Doctor of Technology Programme will be through a CTVET Master of Technology level, or equivalent qualification in the appropriate subjects and points.

Required tasks

Recruits into industry can perform a wide variety of work, most of which are highly complex in nature. They can make informed judgment on complex issues in technology or professional practice often in the absence of complete data and communicate ideas and conclusions clearly to specialists and non-specialists in the discipline. Recruits will be able to exhibit qualities and transferable skills necessary in exercising of personal responsibility and initiative in a very complex and unpredictable situation

4.3 Quality of facilities and infrastructure

4.3.1 Workshop/Laboratory

Under the Ghana-China project for the construction of workshops, rehabilitation and upgrading of equipment in Technical Institutes and Universities in Ghana, a number of TVET institutions have benefited from delivery and installation of state-of the art equipment to improve TVET delivery. A total of 24 Institutions are benefiting from retooling and new constructions whereas a total of 222 buildings are undergoing various forms of rehabilitation. These interventions have significantly improved the quality and conditions of classrooms in many of the TVET institutions.

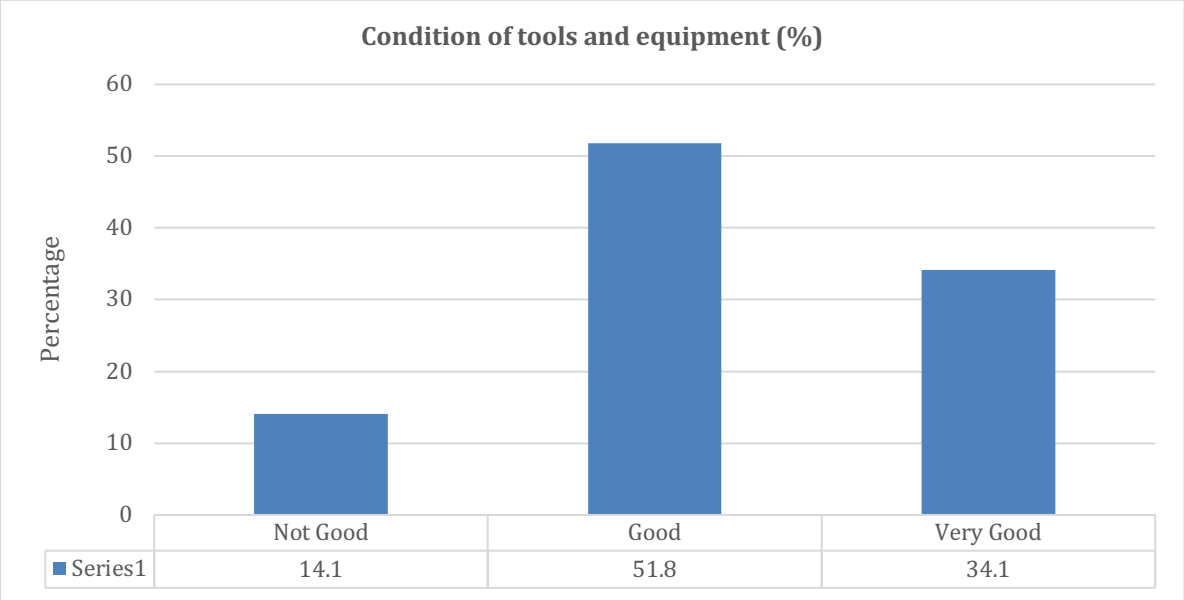
Out of the 85 institutions that participated in the Commission's field survey, 81 of them, representing 95.3 %, indicate that they use workshops/laboratory facilities of the institution for practical works. About 3.5 % of the institutions reported that they depend on workshops owned by private individuals and companies for practical works whereas 1.2 % depend on workshop/laboratory facilities in other sister institutions for practical work as indicated in figure 4.3.

Figure 4.3: Access to workshop/laboratory facilities

Source: CTVET field survey, 2021

4.3.2 Condition of tools and equipment

Figure 4.4: condition of tools and equipment at the workshops/laboratories



Source: CTVET field survey, 2021

About 51.8 % of the institutions that were sampled reported that the condition of tools and equipment in their workshop/laboratories is good whereas 34.1 % of the institutions indicated the tools and equipment at their workshops/laboratories are in very good condition. Less than 15 % of

the sampled institutions reported that their tools and equipment are in bad condition which largely reflect the ongoing retooling in the sector.

4.3.3 ICT Infrastructure

Details on ICT infrastructure as found in the sampled institutions are presented in table 4.3.

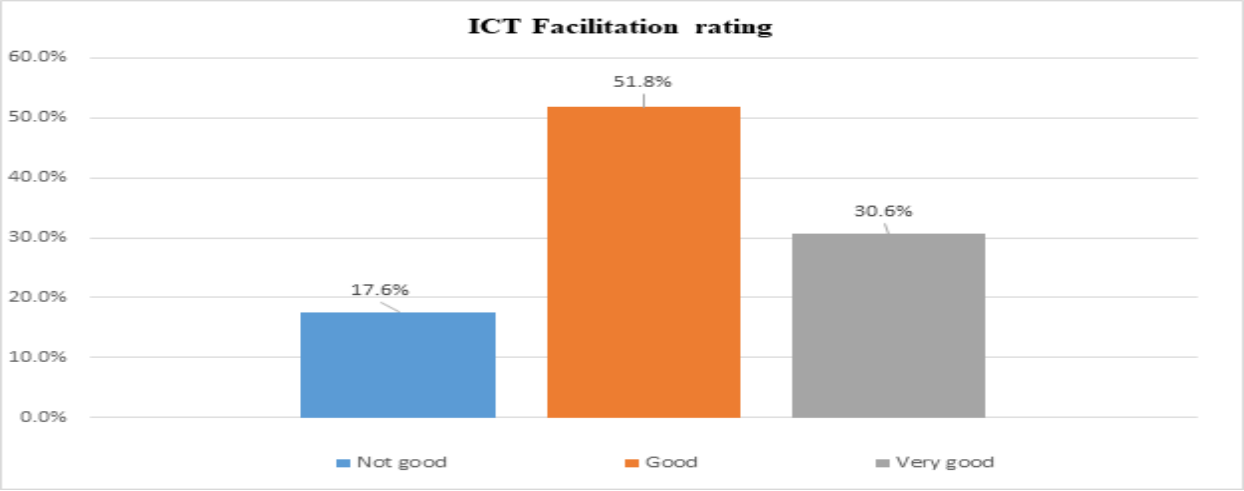
Table 4.2: Condition of ICT Infrastructure

ICT Infrastructure Available	Percentage
ICT center available but no facilitator	1.2
ICT equipment available but no supporting resources	7.0
ICT center available and in use	84.7
No ICT center	7.1

Source: CTVET field survey, 2021

About 7.1 % of the sampled institutions do not have ICT centers or facilities. As a result, these institutions access pay-in-service ICT centers whilst some of them also depend on ICT facilities in sister institutions. About 8.2 % of the institutions have ICT infrastructure which are not being used because they either do not have facilitators or do not have supporting resources. About 84.7 indicated that they have functional ICT infrastructure. However, out of the 84.7 % 17.6 % of the institutions indicated that even though they have ICT infrastructure that are in use, the condition of the infrastructure is not good.

Figure 4.5: Rating of ICT facilities



Source: CTVET field survey, 2021

4.4 Greening and Waste Management

This section analyzes the application of greening principles in the institutions of which waste management is one. Greening TVET is a practice of pursuing practices that are friendly to the environment and green skills acquisition. It includes greening the campus, greening the curriculum, greening research, greening the workplace and greening institutional culture. Proper waste disposal contributes to greening the campus and work places.

Table 4.3: Green environment/waste management

Responses	Frequency	Percent
Institutions that do not practice proper waste management	31	36.5
Institutions that practice proper waste management	54	63.5
Total	**85**	**100**

Source: CTVET field survey, 2021

Results from Table 4.4 indicate that, 31 out of the 85 sampled institutions representing 36.5 % do not practice any waste management method nor waste segregation in their various institutions. However, the remaining 54 representing 63.5 % have ensured a green environment in their institution.

4.4.1 Waste management methods available

Table 4.4 shows the type of waste management available at the institutions contacted for this survey. Out of 85 institutions, 30 of them representing 35.3% have registered with a waste management company such as Zoomlion and Allianz Waste Limited for regular waste disposal at a fee. These companies have provided them with waste and dustbins for segregation of waste for easy disposal. 9 of the institutions representing 10.6% collect their waste in a bin and dump them at designated landfill and refuse dump sites in their locality, while 8 institutions (9.4%) dispose their refuse in a pit dug by the institution. Moreover, 4 institutions (4.7%) burn their refuse when they collect them, 3 of them convert their waste to compost and 2 institutions have an arrangement with their respective district assembly for collection of their refuse. However, per the results, it is alarming to note that 34.1% of such institutions have not adopted any type of waste management system and therefore how they manage their waste needs to be investigated further.

Table 4.4: Waste Management Availability

Type of waste system	Frequency	Percent
Burning of refuse	4	4.7
Composting	3	3.5
Dispose in a pit	8	9.4
Collection by District Assembly	2	2.4
Landfill and refuse dump	9	10.6
None	29	34.1
Registered with a company	30	35.3
Total	**85**	**100**

Source: CTVET field survey data, 2021

4.5 Enforcement

Compliance to rules and procedures by TVET providers is monitored by the Commission for TVET through the Enforcement Unit. The main function of the department is to ensure stakeholder implementation of the quality assurance procedures and their compliance with statutory laws, regulation and standards. The unit works through the following two main divisions:

a. The Inspectorate unit
b. The Compliance unit

Stakeholder compliance means compliance with all external regulatory requirements and standards coupled with all the internal obligations driven by their internal quality assurance mechanism. The element of quality assurance in the enforcement process is to help address the issues of mismatch, misalignment and gaps within our accreditation process and effective implementation of the CBT by various stakeholders.

4.5.1 Functions of the Enforcement Unit

The Unit has the responsibility to:

a. Develop and implement guidelines and other technical documents to drive quality sustainable compliance and enforcement system in TVET

b. Conduct a compliance assessment audit/Inspection to quality assure the implementation of CBT processes and procedures by way of ensuring compliance with the Commission's approved standards.
c. Provide Technical support to stakeholders in the implementation of CBT processes and procedures.
d. Monitor and enforce actionable measures on stakeholders who do not comply with the Commission's approved standards.

Major Objective of the Unit

a. To ensure consistency in the implementation of CBT processes and procedures.
b. To ensure an efficient and effective approach to achieving the desired outcomes of CBT through the process of Quality assurance.
c. To provide clarity/transparency to TPs and other stakeholders on the Commission's decisions on enforcement action.
d. To guide the action, policy and decision making by the Commission.
e. Use compliance and enforcement strategies such as assessment, verification, auditing, sanctions in such a way as to best achieve legislated objectives and encourage compliance with legislative instruments as a tool in ensuring stakeholders comply with the Commission's Legislative Instrument (LI).

Scope of Activities Undertaken Before and After Inspection

i. Develop working tools and mechanisms to guide the enforcement unit processes and procedures (Compliance audit tool/Checklist).
ii. Categorize and schedule institutions for standards compliance audit/assessments.
iii. Inspect institutions for compliance with the Commission's approved standards and guidelines.
iv. Monitor assessment verification by various awarding bodies for standards compliance.
v. Generate and co-ordinate the reports from the various inspections conducted.
vi. Liaise with various Departments/Divisions in relation to institutional challenges on compliance with the Commission's approved standards.
vii. Share feedback from inspection conducted with respective stakeholders.
viii. Recommend relevant sanctions and penalties on stakeholders who continuously refuse to comply with the Commission's standards and regulation
ix. Identify and monitor non-compliant TVET institutions across the country to bring them to compliance with the Commission's regulation
x. Analyse and update our database system on all information related to our stakeholders (Report on compliant and non-compliant stakeholders)

4.6 General Overview of Quality Assurance

4.6.1 Definition and concept of Quality

Quality indicates how an output or service conforms with certain specifications and standards. It is a multidimensional concept, embracing all functions and activities of educational system, including teaching and academic programmes, research and scholarship, staffing, students, buildings, facilities, equipment, services to the community, academic environment; taking into account national cultural values, circumstances and international dimensions such as exchange of knowledge, interactive networking, mobility of teachers and students and international research projects (African Union, 2007).

Quality in education is based on how good and efficient the facilitators are; how adequate and accessible the facilities and materials needed for effective training and learning are; how prepared the graduates are for meeting the challenges of life and for solving the social problems.

Quality is, however, an ongoing method of evaluation, assessment, monitoring, and sustaining standards within institutions (COTVET External Quality Assurance Manual, 2016).

4.6.2 Quality Assurance in Education

Quality Assurance (QA) in education is the process and procedures for ensuring that qualifications, assessment, and programme delivery meet certain standards (Tuck, 2007). It also refers to all forms of internal and external quality monitoring, evaluation, and the systematic review of educational programmes to ensure acceptable standards of education is being maintained (African Union, 2007).

Generally, QA in education is administered by the Ghana Tertiary Education Commission (GTEC), Commission for Technical Vocational Education and Training (CTVET), Ghana Education Service (GES) and the TVET Service. Each of these institutions has specific mandates.

4.6.3 Quality Assurance in TVET

Specifically, QA in TVET is directly related to the achievements of learning outcome, thus knowledge, skills and competence achieved at the end of the learning process which fulfills the key stakeholders' expectations.

QA in TVET ensures that assessment meets the required standards, raising the likelihood that a qualification is a valid and reliable testament to a learner's knowledge, skills, and wider competences. QA processes are implemented regularly with the purpose to enhance TVET qualification. This establishes the need for and the importance of Quality Assurance in all aspects of TVET delivery in Ghana.

The Enforcement Unit (see previous chapters) of the Commission conducts external assessment checks to pick information on quality of TVET delivery in all Institutions. Training institutions are empowered through continuous improvement support to provide internal QA services in their respective institutions. To ensure quality in TVET, it is important to establish QA frameworks considering all aspects of TVET.

4.7 Institutional Quality Assurance

Two types of quality assurance are conducted in Ghana. The first one is the Internal Quality Assurance which is mostly conducted by Assessors (Supervisors) in the training institution and takes place inside the training center. External Quality Assurance processes is conducted in two phases, phase one is conducted by the awarding bodies whilst phase two is conducted by the regulatory bodies.

4.7.1 Internal quality assurance

Internal quality assurance in TVET institutions focuses on the systemic assurance of the quality of the TVET services provided, the processes through which the services are provided and the programmes (CBT based including workplace experience), materials, facilities, and human resources (trainers, facilitators, assessors, internal verifiers) in line with the specifications and requirements set.

4.7.2 External Quality Assurance

The Commission conducts external quality assurance as a second layer process to quality assure each institution's implementation processes and to ascertain their level of compliance with standards, rules, and regulations. The essence of the external quality assurance processes is to help identify the gaps during the implementation process and to ensure that TVET institutions are operating within a standardize and regulatory system.

During External QA, Assessors conduct an inspection to check each institution's QA system and compliance to regulations and standards based on the following thematic areas:

1. Institutional Bio Data
2. Governance, Legal and Regulatory system
3. Physical Facilities and Infrastructure
4. Health and Safety System
5. Management and Operational System
6. Training, Delivery and Trainee Support System

These key thematic areas serve as a guide used in the preparation of a checklist which is used to assess TVET institutions. This tool also serves as a mechanism for monitoring and evaluating services and programmes provided by the TVET institutions.

Each institution is assessed on their level of compliance and adherence to these key indicators under each thematic area. Institutions that perform well during the external QA assessment are commended and encouraged.

Governance, Legal & Regulatory System

When conducting the compliance assessment, the team ensures the existence and availability of all legal documents which are mandatory regulatory requirements. They also verify institution's performance based on how well they are working towards achieving their vision and mission as stated in the strategic plan and implementation of key strategies towards growth and sustainability. The constitution of a governing board is very crucial in every organization. Therefore, the appropriate execution of their roles towards achievement of the institutions mandate is a key aspect when conducting external QA.

Physical Facilities and Infrastructure

These indicators help to identify whether there are available and adequate facilities which are fit for purpose. The quality, accessibility, and conditions of the facilities, tools and equipment are general key indicators when assessing and conducting a QA check. Physical facilities such as facilitation rooms, classrooms, laboratories, workshops, library, dormitories/hostels/halls must be in good condition and quality in nature. Workshops must be well equipped and adequate. The environment must be kept clean with a proper waste management system in place.

Health and Safety System

The safety of an individual in any institution is very crucial. Therefore, every institution is encouraged to have an institutional Health and Safety policy and Environmental guideline. There must be adequate and accessible health and safety signs and a well stocked first aid box available. All facilities must comply with all mandatory safety regulations (lock, fire, emergency), must be regularly cleaned, well illuminated and ventilated.

Management and Operational System

Institutions must have in existence a functional and competent management structure and systems. All policies and guidelines such as Admission & Enrollment policy, HR policy, code of conduct, internal quality assurance policy, career guidance and counselling policy must be available and accessible by staff, trainees and other key stakeholders.

Training, Delivery and Trainee Support System

The quality of training and delivery in institutions is dependent on the adequacy, availability, and competency of facilitators, adequacy and availability of learning aids and workshops, learners' completion and enrolment rates and facilitation methods.

Some major indicators include approved learning materials (trade specific curriculum package), course materials, books, specialized journals and other informational materials. There must also be adequate trainers to support trainees and other support measures such as scholarships and extra tuition must be made available. The qualification and competency of trainers are a key indicator assessed when conducting an external QA. The right delivery methods must be used at all times to impact knowledge and skills and to help produce competent trainees for industry.

Improving Quality Assurance

Quality Assurance as indicated is a systematic review of processes that provides quality, equity, efficiency and also provides confidence, transparency and trust in stakeholders. Developing quality assurance systems is crucial to support high quality education and training. Although institutions are mandated to adhere to all regulatory requirements and standard stipulated by the Commission to help ensure quality in teaching and learning, it is important that they continuously improve and maintain quality services and be in good standing with the Commission.

Therefore, for an institution to be in good standing as per the Commission's regulatory requirements and standards, the following must be adhered to:

a. The registration and accreditation of the institution as a training provider and trainees must be up-to-date, and renewed after expiry (every 5 years)
b. Institutional accreditation requirements must always be current and made available for inspection by the external QA team.
c. Institutions must establish an internal QA system for assessing and monitoring their institutional arrangement and implementation systems (training and delivery, management and operational systems, health and safety, among others).
d. Institutions must meet all the external QA requirements as outlined in the QA thematic areas. In view of this, institutions that fail in complying with these regulatory requirements may also face some legal sanctions. Therefore, it is important for an institution to be in good standing to deliver quality training that meets the needs of the learner and industry, as well as the standards set by the Commission and other regulatory bodies.

CHAPTER V

TVET FINANCING

5.1 Introduction

The Sustainable Development Goals provide the framework for countries to revise their strategies towards the realization of the UN Agenda 2030. In realizing the SDG targets, countries need to invest in skills development to improve the employability and wellbeing of individuals towards socio-economic sustainability.

One critical area for skills development is investment in TVET, making financing of TVET system a key factor in TVET delivery. TVET financing is one major challenge in Ghana. It is estimated that, it costs three times the amount spent on a traditional student to train one learner in a TVET programme (MoE, 2020).

Funding for TVET sector come from three principal sources. These are:

a. Government
b. Development partners, and
c. Private Sector

5.2 Government

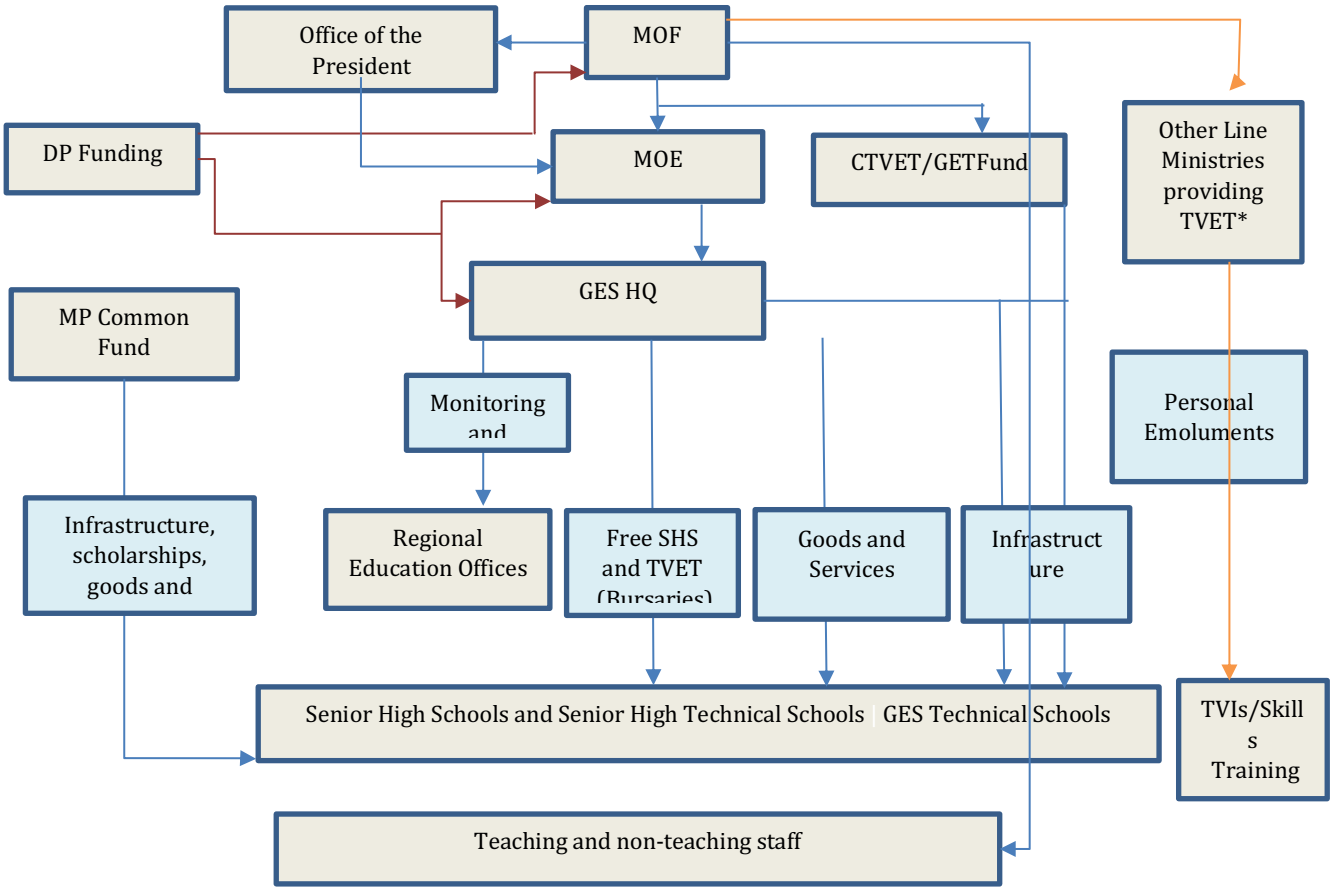
Public TVET institutions are funded by the government through the education sector annual budget allocations. Funding in this sense refers to provision of infrastructure and training facilities including workshops, tools, and equipment. Other areas of government funding include recruitment and payment for training facilitators/teachers, provision of logistics such as vehicles, computers, and other administrative equipment.

Apart from the composite annual budget towards TVET funding, other government agencies provide support for learners in the form of scholarship, bursaries and loans. The Ghana Education Trust Fund (GETFund), the Scholarship Secretariat and the Students Loan Trust Fund (SLTF) are among the government agencies that provide support for students including TVET learners in Ghana.

5.2.1 Flow of Funds to TVET

The flow of funds to the TVET sub-sector emanates from sector policies. These policies are budgeted for by the Ministry of Finance in the annual budget and economic policies. Fund allocation goes to the sector Ministries and agencies responsible for the implementation of TVET strategies. With the passage of the Education Regulatory Bodies Act (Act 1023), the Ministry of Education becomes the sector ministry in charge of TVET delivery. TVET funding is also supported by development partners. Figure 5.1 gives detailed information on the flow of funds to the TVET subsector in Ghana.

Figure 5.1: Flow of funds in the TVET sub-sector



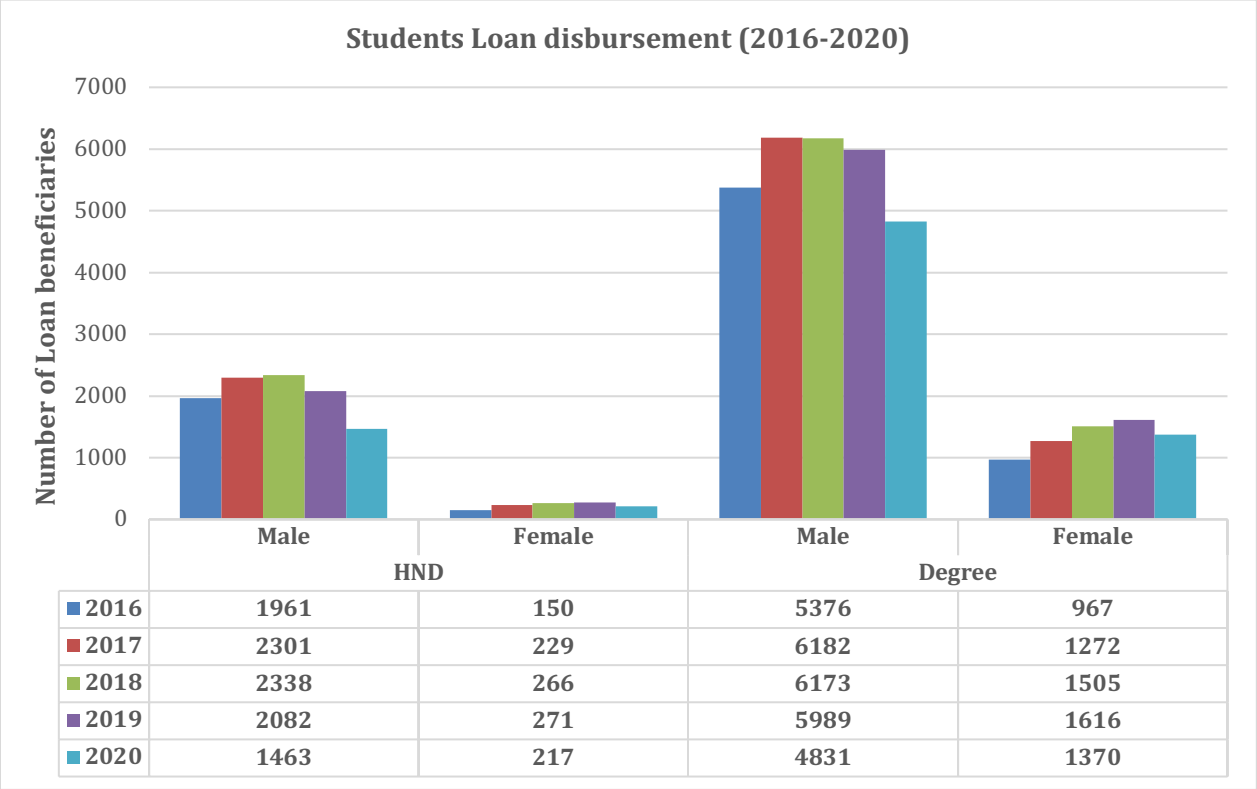
*Source: World Bank, * Ministry of Food and Agriculture; Employment and Labor Relations; Gender, Children and Social Protection; Youth and Sports; Trade and Industry; Roads and Highways; Transport; Local Government and Rural Development*

5.2.2 Students Loan Trust Fund (SLTF)

The Students Loan Trust Fund is one of the agencies that support tertiary students including those in the TVET sector with loans during their course of study. The Fund provides flexible modes for repayment of the loan after the learner had successfully completed the programme of study. However, it is only available at the tertiary TVET level. As at 2020/21 academic year, the loan amount per beneficiary ranges between GHC1,500.00 to GHC3,000.00 per academic year depending on the needs of the applicant. The Students Loan remains the most reliable funding source for learners from less privileged economic backgrounds. Figure 5.2 shows the number of learners who had benefited from the Students Loans between 2015/16 and 2020/21 academic years. Between these academic years, the Students Loan Trust Fund had disbursed loans to a total of 46,559 tertiary students pursuing HND and Degree programmes. Out of the total beneficiaries,

16.89 % are females and 83.11 % are males. About 24.22 % of the beneficiaries are in the Technical Universities, majority of whom are pursuing TVET programmes.

Figure 5.2: Students with Students Loan Support (2016-2021)

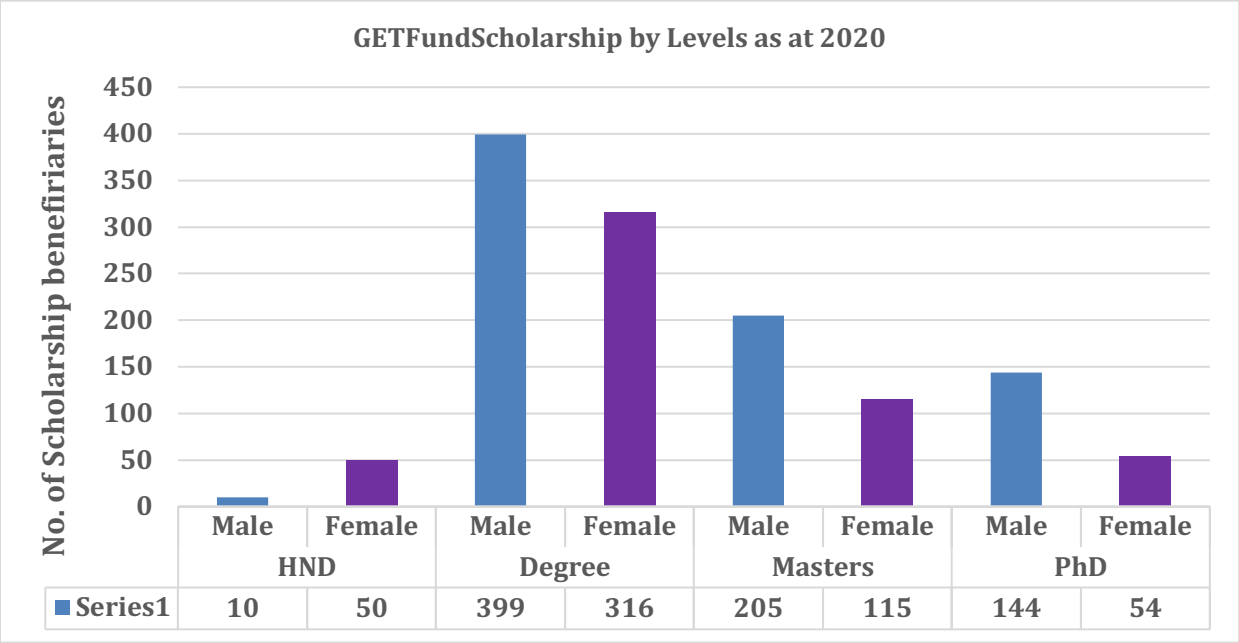


Source: Students Loan Trust Fund, 2021

5.2.3 Ghana Education Trust Fund (GETFund)

The Ghana Education Trust Fund is a public sector agency established by an act of Parliament to assist with nation-wide financing of education. The Fund has a mandate to support the delivery of quality education to the citizens of Ghana from the basic to tertiary level through scholarships aimed at ensuring equitable provision of essential resources for all levels of education to all segments of the Ghanaian population. The scholarship is available to all students including TVET learners. Figure 5.2 provides information on beneficiaries between 2018 and 2020. Between the period, a total of 1,293 tertiary students benefited from the GETFund scholarship to pursue various tertiary programmes. Out of the total beneficiaries, 41.38 % are females. Majority of the scholarship beneficiaries are students pursuing degree programmes and the least category of loan beneficiaries are those pursuing HND programmes (4.64%) in the Technical Universities.

Figure 5.3 Students with GETFund support (2020)



5.2.4 Scholarship Secretariat

The scholarship secretariat is responsible for the awards of scholarships in two main categories: local and foreign. The local tertiary awards are thesis and bursary grants to postgraduate students in the public tertiary institutions in Ghana. The award also covers payment of disability grants to the physically challenged Ghanaian students in tertiary institutions and long stay allowance for medical science students in public tertiary institutions in the country.

Foreign tertiary awards cover scholarships at the tertiary level of education in a foreign country. This is based on a bilateral cooperation agreement between the Government of Ghana and the Government of the awarding country.

Figure 5.4 Local scholarships awarded (2017-2020)

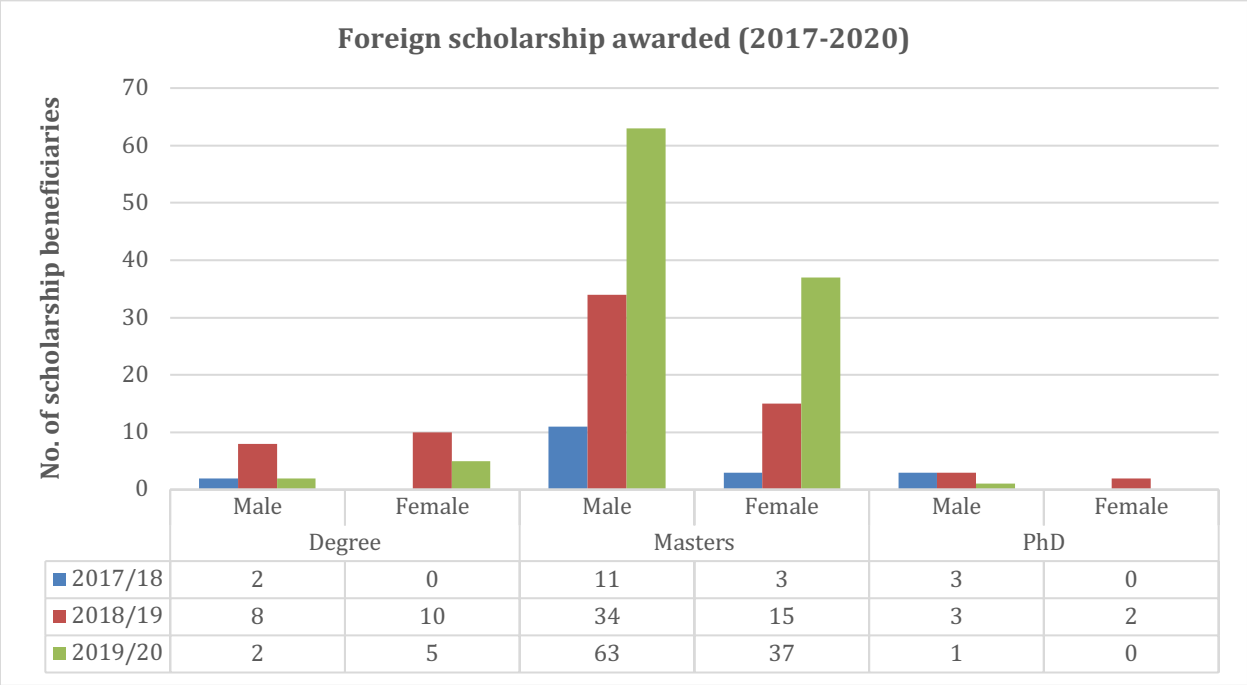
	HND		Degree		Masters		PhD	
	Male	Female	Male	Female	Male	Female	Male	Female
2017/18	4	3	47	25	11	6	9	6
2018/19	3	0	99	61	23	7	10	4
2019/20	26	47	279	177	79	30	118	42

Source: Scholarship Secretariat, 2021

Between 2017 and 2020, a total of 1,116 students were awarded scholarships by the Scholarship Secretariat to study in Ghana. The data indicates that HND students are the least (7.44%) scholarship beneficiaries. Majority (61.65%) of the scholarship beneficiaries are students pursuing degree programmes. The period also recorded support to more PhD students (16.94%) than Masters students (13.98%) as indicated in figure 5.4.

Figure 5.5 shows the number of students who were awarded foreign scholarships. Unlike the local scholarships, the data for foreign scholarships suggest that 81.91 % of the beneficiaries are master students. During the period, no student was awarded any foreign scholarship to pursue an HND programme.

Figure 5.5 Foreign scholarships awarded (2017-2020)

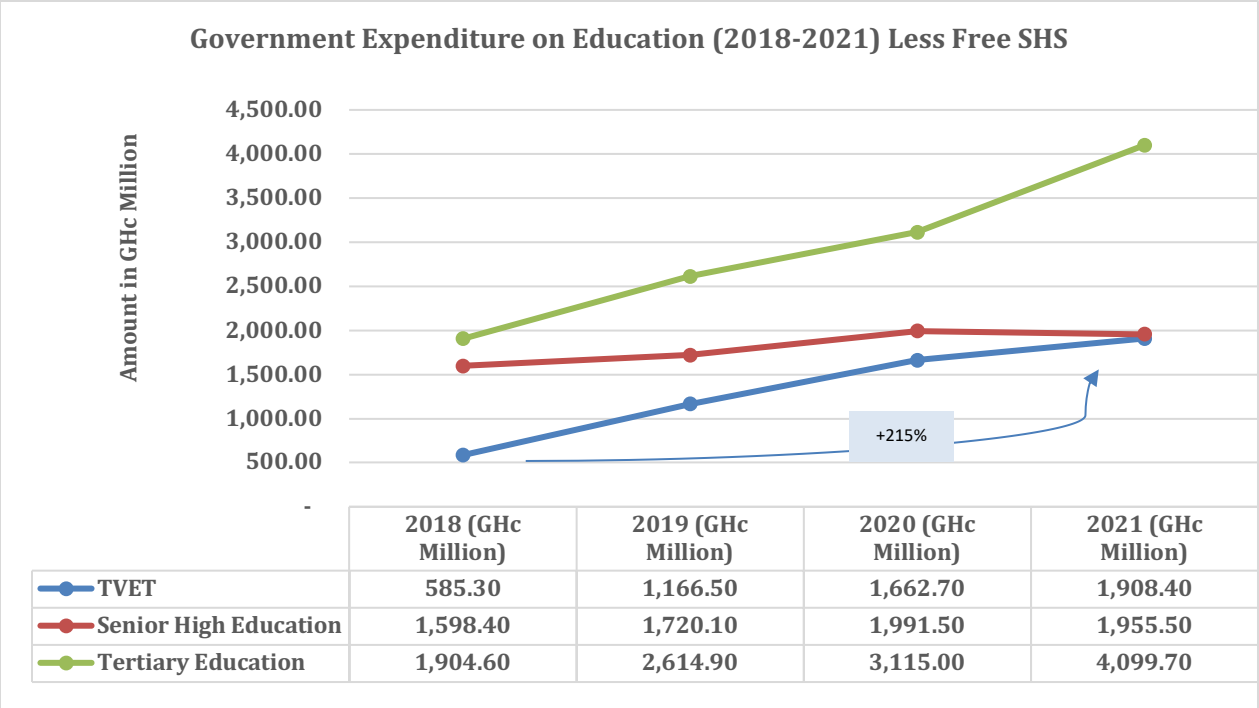


Source: Scholarship Secretariat, 2021

5.3 Government expenditure in education (2018-2021)

The expenditure on TVET, Senior High Education and Tertiary education is presented in figure 5.6. The data indicates that between 2018 to 2021, government expenditure in the TVET sector has seen a steady increase from GHC585.30 million to GHC1,908.40 million comparing strongly with expenditure in the secondary education (GHC1,995.50 million) in 2021. This development is consistent with the ESP (2018-2030) target to increase TVET financing from 4 % to 6 % of MoE budgetary allocation.

Figure 5.6: Government expenditure on education (2018-2021) Less Free SHS



	2018 (GHc Million)	2019 (GHc Million)	2020 (GHc Million)	2021 (GHc Million)
TVET	585.30	1,166.50	1,662.70	1,908.40
Senior High Education	1,598.40	1,720.10	1,991.50	1,955.50
Tertiary Education	1,904.60	2,614.90	3,115.00	4,099.70

Source: Ministry of Education, 2021

Cost of Free Senior High School and FREE TVET

The government of Ghana allocated a total amount of GHC 7.62bn for the implementation of the FSHS within five years. (Ministry of Finance, July 2021) Out of this amount GHC 4.18 representing 54.76% was sourced from government while GHC 3.44 representing 45.24% from Annual Budget Funding Amount (ABFA).

5.3.1 Expenditure per learner

This section presents information on cost per learner in the various categories of TVET institutions. The annual cost per learner ranges between GHC102.39 and 2,240.00 depending on the type of the training provider. Whereas cost per learner per year in ICCES institutions are relatively low (averagely GHC162.71), it costs and average of GHC2,046.67 to training one learner in GRATIS institutions making it the highest cost per learner as at 2020/21 academic year. Between 2016 and 2021, cost per learner for NVTI increased by 46.9 %, CDC by 66.7 %, GRATIS by 24.4 % and that of ICCES by 23 %. Details is presented in table 5.1. This cost differentials reflect the level of quality of TVET delivery in the various institutions and their ability to run Competency Based Training programmes.

Table 5.1: TVET Expenditure Per Learner by Category of Training Institution

Category of Institution	Expenditure Per Learner (GHS)					
	2016	2017	2018	2019	2020	2021
NVTI	1,225.29	1,234.12	1,750.00	1,800.00	1,800.00	1,800.00
CDC	900.00	900.00	1,050.00	1,200.00	1,350.00	1,500.00
GRATIS	1,800.00	1,800.00	2,100.00	2,100.00	2,240.00	2,240.00
ICCES	102.39	154.80	118.52	205.66	268.94	125.93

Source:CTVET Data source, 2021

5.4 Funding situation of some Training Providers

As investigated with the survey CTVET conducted in 2021 among 85 training providers (public and private), it was found that most (almost 60%) of them count on additional funding sources, apart from the government funding. About 19% reported receiving funding support from private companies (mostly in-kind and money donations). Almost 30% stated that they also receive some form of sponsorship by NGO's, also with a focus on in-kind and money donations. Other forms of support includes voluntary personnel, training provision, infrastructure, and scholarships. Individual sponsorship (19%) usually is done by in-kind and money contributions, but also in form of scholarships. Faith-based sponsoring applies to almost 13% of the surveyed training providers. In that case, scholarships and money contributions are the dominant forms of sponsorship.

5.5 Development Partner funding

In addition to government funding, development partners also contribute to TVET funding in various forms. Their participation in TVET funding comes in the form of financial support. They also provide technical support which is non-financial. Significant among the Development Partners involved in the sector are:

The World Bank, African Development Bank, German Kreditanstalt für Wiederaufbau (KfW), German Corporation for International Cooperation (GIZ), the European Union, JICA, German Federal Ministry for Education and Research (BMBF), GOVET (BIBB), NUFFIC, UNESCO, Konrad Adenauer Stiftung (KAS), Netherlands Embassy, AUDA-NEPAD, Mastercard Foundation, DFID, USAID, UNDP, UNICEF, CINOP, Delegation der Deutschen Wirtschaft in Ghana (AHK Ghana) among others. In most cases, these partners are associated with specific projects areas.

An estimated 20 multilateral and bilateral donors have been involved in Ghana's education sector since the reform began in 1987. These involvements have ranged from direct allocation of resources to the provision of technical services in the form of policy interventions and supply of consultancy services. Donor contribution to Ghana has come through grants and loans, project aid, commodity aid, debt relief, and budget support. Details of the kind of support given is presented in table 7.1 under international cooperation.

5.6 Private Sector

Private Sector involvement in TVET financing is manifested in the roles played by private sector institutions. Private TVET institutions are funded by the private sector actors through the setting up of private TVET institutions and other engagements under apprenticeship. Funding in this sense refers to provision of infrastructure and training facilities including workshops, tools, and equipment. Other areas of private sector funding include recruitment and payment for training facilitators/teachers, provision of logistics such as vehicles, computers, and other administrative equipment.

CHAPTER VI

INDUSTRY ENGAGEMENT

6.1 Introduction

The Commission for TVET is committed to advancing industrial synergy that enable stakeholders to mutually promote skills development. The strategy has been designed to supply industry with a workforce that has the requisite knowledge, skills, attitude, and values that meet industry standards. The primary aim is to achieve precision and quality in TVET delivery. To align knowledge and skills to industry needs, there is the need for stakeholder engagement with industry experts in the development of training programmes.

This chapter provides information on various strategies adopted by the Commission for TVET in collaborating with industry and other trade associations in Ghana.

6.2 Contribution of Sector Skills Bodies and Trade Associations to Skills Development

The Sector Skills Bodies (SSBs) are advisory industry bodies that seek to support the Ghanaian Government's TVET strategy to build a skills system that produces a demand-driven, robust labour market and skills intelligence (GIZ 2019). A key driver of current efforts to reform skills development globally is the need to strengthen linkages between industry and the training system. Sector Skills Bodies (SSBs) help to achieve this by bringing together major enterprises and industry bodies within an industry sector to discuss skill development issues affecting their sector. Sector Skills Bodies are established by the Commission for Technical and Vocational Education and Training (CTVET) in collaboration with the International Labour Organization (ILO), the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), German Delegation of Industry and Commerce AHK, Konrad-Adenauer Stifung and the Ford Foundation. The SSBs drive development and professional practices in the sector. They have the mandate to influence how training is delivered to meet the skills needs of the employing industry. They also ensure that training is relevant to industry needs and is aligned with the national skills development policy to increase opportunities for all individuals in the workforce.

The Commission for Technical and Vocational Education and Training (CTVET) has identified twenty-two (22) sectors to establish sector skills bodies. The SSBs for Agriculture, Construction, Hospitality and Tourism SSBs were inaugurated on the 5th of September, 2019 whilst Renewable Energy, Pharmaceuticals, Automotive, Oil & Gas and ICT, Healthcare, Logistics & Transportation and Textiles Apparel & Garment SSBs was done on the 28th of May 2021. Table 6.1 shows the inaugurated SSBs and their supporting partners.

Table 6.1 Sector Skills Bodies

NO.	SECTOR SKILLS BODY	STATUS	CHAIRPERSONS FOR SSB	SUPPORTING PARTNER	NUMBER OF MEMBERS
1	Agricultural SSB	Inaugurated on 5th September 2019 They have developed a draft Strategy plan	Mr. Anthony Morrison (President - Ghana Chamber of Agribusiness)	GIZ/ILO	19
2	Construction SSB		Mr. Samuel Amegayibor (The Executive Secretary for the Ghana Real Estate Developers Association)	GIZ	17
3	Hospitality & Tourism SSB		Dr. Eunice Fay Amissah (Lecturer, Department of Hospitality and Tourism Management, University of Cape Coast)	ILO	14
4	Renewable Energy SSB	Inaugurated on the 28th May, 2021	Dr. Kofi Korsah (President, KERSL Automation)	GIZ -Planco Group	17
5	Pharmaceuticals SSB		Dr. Michael Agyekum Addo (Chairman, Kama Group)	AHK	21
6	Automotive SSB		Mr. Francis Kudjo Kudjordjie (General Manager, Kama Group)	AHK	17

7	Oil & Gas SSB		Rev. Dr. Douglas Zormelo (CEO, Zormelo and Associates)	ILO	19
8	ICT SSB		Madam Ethel Coffie (CEO of Edel Technologies and Founder, Women in Technology)	GIZ	12
9	Healthcare SSB	Inaugurated on the 28th of May, 2021	Dr. Samuel Yaw Opoku (Allied Health Professional Council)	Ford Foundation	17
10	Logistics & Transportation SSB		Rev. Godwin Douglas Mensah (Chartered institute of Logistics and Transport)		16
11	Textiles Apparel & Garment SSB		Salma Salifu (Dignity DTRT Apparel)		19

After the inauguration of the SSBs, each is taken through the following processes:

- Skills for Trade and Economic Diversification (STED) and Skills Needs Anticipation (SNA) workshop
- Development of strategy and implementation plan
- Leadership training workshop to build the capacity of members to enable them function effectively
- Training in the development of occupational standards for competency-based training curriculum in line with the National TVET Qualifications Framework

A secretariat is built for Sector Skills Bodies at the NVTI headquarters at East Legon with support from the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH GIZ. The secretariat was inaugurated on the 28th of May 2021.

The Role of SSBs

1. Produce demand-driven, robust labour market and skills intelligence.
2. Outline career pathways, develop occupational standards and assessment.
3. Make recommendations to the Commission for TVET to ensure that qualifications, curriculum, and learning materials reflect the occupational standards and that learning materials are also widely accessible.
4. Develop sector skills strategies, including funding recommendations and the formation of Public and Private Partnerships (PPPs) and feed into national and regional TVET strategies.
5. Facilitate initial training of young people and skills upgrading for existing workers, through apprenticeship, internship, mentorship and other work-based development programmes.
6. Advocate for government and other incentives to encourage industry to invest in skills development and TVET.
7. Advocate and facilitate greater linkages between skills attainment, professional standards, payment regimes and the TVET system.

6.3 Case Study of an Industry Contribution in the Development of a Training Package for National Certificate I (NCI) Building Construction

Industry is involved throughout the development processes of a training package. For instance, in the development of training package for National Certificate I and II (NC I &II) for Building Construction Technology, stakeholders from the building industry were invited through the Sector Skills Body for Construction. These stakeholders were industry experts from different construction companies, representatives from educational institutions and professional bodies.

These stakeholders were given training on the generation of occupational standards. After the training, the industry experts together with the other stakeholders generated the occupational standard (OS) for NC I & II Building Construction Technology. The generated OS for NCI & II Building Construction was validated by another group of industry experts to see if the generated occupational standard indeed met the needs of industry. The generated occupational standard became the standard document on which the curriculum was developed for Building Construction Technology. It was based on the validated occupational standards that the Unit Specification, Learning Materials, Marking Guidelines, Re-marking Guidelines, Assessment Instruments and Re-assessment instruments were developed.

Industry experts in the construction industry went through all the stages involved in the curriculum development for (NC I & II) Building Construction Technology to ensure that what was expected to be in the curriculum was captured. After the whole training package was developed, there was another group of industry experts who together with other stakeholders validated the whole training package to ensure that the skills, knowledge, and attitude that is expected of learners to have to make them employable for the Building Construction industry at NC I & II on the NTVETQF were captured.

Occupational standards generation has always been industry driven. Trade experts have always played a key role in the development of occupational standards. The Commission for TVET has always made sure that trade experts are always involved in this activity by inviting them personally to offer their services. But with the Sector Skills Bodies onboard, industry experts are invited through them to provide the Commission with the right industry trade experts for development of training packages. The engagement of the Sector Skills Bodies started from 2019 with Agriculture, Construction and Hospitality & Tourism Sector Skills Bodies.

Industry experts have been involved in the development and revision of over forty-four (44) training packages at different levels as at the time of this report. Details of the developed training packages are provided in the table below:

Table 6.2: Trade Packages

TRADES PACKAGES					
NO	**TRADES**	**TRADE CODE**	**NTVETQF LEVEL**	**DATE OF APPROVAL**	**DATE OF EXPIRY**
1	Computer Data Administration	ICT-CDA320A	NC I	28 April, 2020	27 April, 2023
2	Computer Networking System	ICT-CNSL320A	NC I	28 April, 2020	27 April, 2023
3	Computer Software Development	ICT-CSD320A	NC I	28 April, 2020	27 April, 2023
4	Cashew Value Chain	AAA-CVC120A	NP I	28 April, 2020	27 April, 2025
5	Cashew Value Chain	AAA-CVC220A	NP II	28 April, 2020	27 April, 2025
6	Cashew Value Chain	AAA-CVC320A	NC I	28 April, 2020	27 April, 2025
7	Cashew Value Chain	AAA-CVC420A	NC II	28 April, 2020	27 April, 2025
8	Mango value Chain	AAA-MVC120A	NP I	28 April, 2020	27 April, 2025
9	Mango value Chain	AAA-MVC220A	NP II	28 April, 2020	27 April, 2025
10	Oil Palm Value chain	AAA-OPV120A	NC I	28 April, 2020	27 April, 2025
11	Oil Palm Value chain	AAA-OPV220A	NC II	28 April, 2020	27 April, 2025

12	Plumbing and Gas Technology	CON-PGT120A	NP I,	28 April, 2020	27 April, 2025
13	Plumbing and Gas Technology	CON-PGT220A	NP II	28 April, 2020	27 April, 2025
14	Plumbing and Gas Technology	CON-PGT320A	NC I	28 April, 2020	27 April, 2025
15	Plumbing and Gas Technology	CON-PGT420A	NC II	28 April, 2020	27 April, 2025
16	Block Laying and Tiling	CON-BLT120A	NP I	28 April, 2020	27 April, 2025
17	Block Laying and Tiling	CON-BLT220A	NP II	28 April, 2020	27 April, 2025
18	Furniture Works	CON-FUW120A	NP I	28 April, 2020	27 April, 2025
19	Furniture Works	CON-FUW220A	NP II	28 April, 2020	27 April, 2025
20	Welding & Fabrication	CON-WFT120B	NP I	28 April, 2020	27 April, 2025
21	Welding & Fabrication Technology	CON-WFT220B	NP II	28 April, 2020	27 April, 2025
22	Welding & Fabrication Technology	CON-WFT320B	NC I	13 May, 2016	12 May, 2021
23	Welding & Fabrication Technology	CON-WFT420B	NC II	13 May, 2016	12 May, 2021
24	Electrical Installation	EEA-ELI120A	NP I	28 April, 2020	27 April, 2025
25	Electrical Installation	EEA-ELI220A	NP II	28 April, 2020	27 April, 2025
26	Electronics	EEA-ELS120A	NP I	28 April, 2020	27 April, 2025
27	Electronics	EEA-ELS220A	NP II	28 April, 2020	27 April, 2025
28	Welding(Oil and Gas)	EOG-WEL420A	NC II	28 April, 2020	27 April, 2025
29	Mechanical(Oil and Gas)	EOG-MEC420A	NC II	28 April, 2020	27 April, 2025
30	Hydraulics Technology	EOG-HYT420A	NC II	28 April, 2020	27 April, 2025

31	Instrumentation Technology	EOG-INT420A	NC II	28 April, 2020	27 April, 2025
32	Well Control	EOG-WEC420A	NC II	28 April, 2020	27 April, 2025
33	Cosmetology	COW-COS120B	NP I	28 April, 2020	27 April, 2025
34	Cosmetology	COW-COS220B	NP II	28 April, 2020	27 April, 2025
35	Make-Up Artistry	COW-MUA320A	NC I	28 April, 2020	27 April, 2025
36	Garment Making	TEA-GAM120B	NP I	28 April, 2020	27 April, 2025
37	Garment Making	TEA-GAM120B	NP II	28 April, 2020	27 April, 2025
38	Automotive Mechanic	ASD-AUM120B	NP I	28 April, 2020	27 April, 2025
39	Automotive Mechanic	ASD-AUM220B	NP II	28 April, 2020	27 April, 2025
40	Computer Data Administration	ICT-CDA420A	NC II	28 July, 2020	27 July, 2023
41	Computer Networking System	ICT-CNSL420A	NC II	28 July, 2020	27 July, 2023
42	Computer Software Development	ICT-CSD430A	NC II	28 July, 2020	27 July, 2023
43	Make-Up Artistry	COW-MUA420A	NC II	9 October, 2020	8 October, 2025
44	Solar Photo Voltaic Technology	EOG-SPV320A	NC I	9 October, 2020	8 October, 2025

6.4 Industry Collaboration in Skills Development

Industry plays a very key role in the development of skills in Ghana and the world at large. Any training package that is developed without industry engagement is highly likely to be at variance with industry skills requirement for employability.

Among the diverse ways industry support skills development are:

- Bring their expertise in the development of occupational standards that meet industry needs. It is based on the occupational standard that a curriculum is developed to meet industry needs. Industry also helps to convert old curriculum into competency-based training. Industry has collaborated to help in development of over forty four (44) competency - based training packages.

- Provide the environment for workplace experience learning (industrial attachment) for trainees to put into practice in a working environment what they learn in school. This prepares trainees adequately to meet industry standards which make them ready for employment after school.

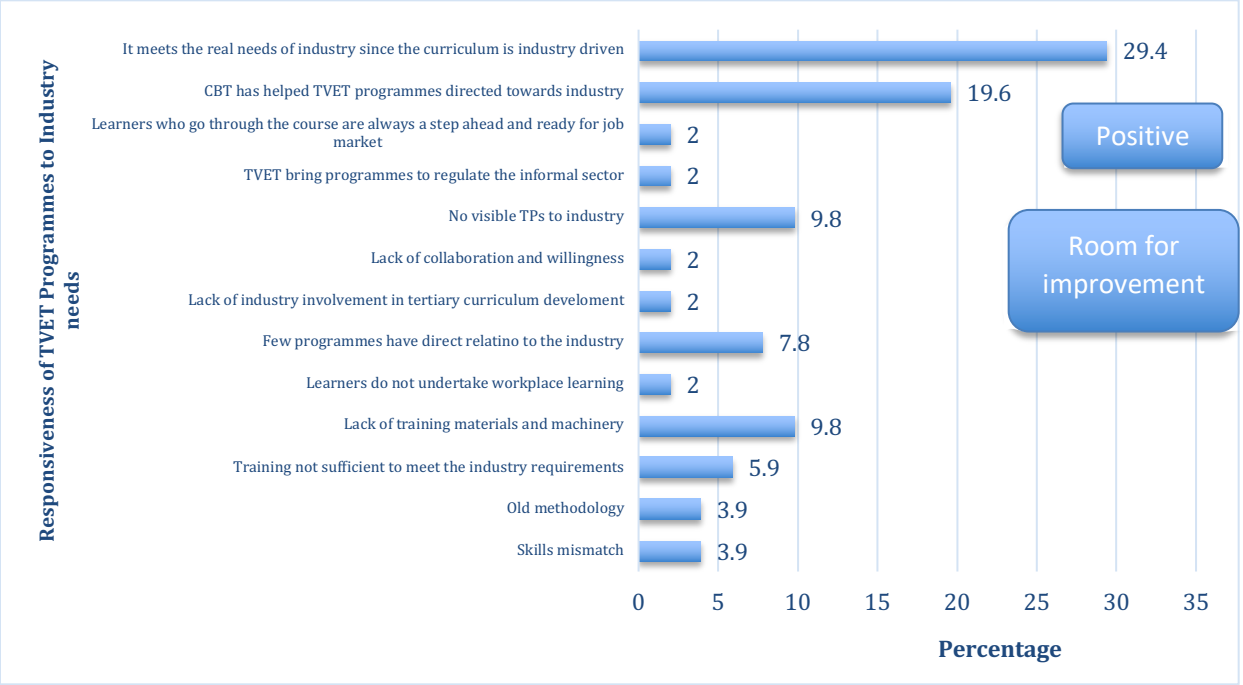
The expectation of Sector Skills Bodies is to increase Workplace Experience Learning opportunities for learners. Since SSBs belong to industry and are stakeholders in skills development, they would speak to industry to open up on Workplace Experience Learning. The more SSBs are established, the more industries come onboard which increases WEL opportunities for learners.

Responsiveness of TVET Programmes to Industry Needs

The TVET sector is primarily mandated to prepare learners for the world of work. This section seeks to find out whether the existing TVET programmes adequately responds to the needs of industry. The data collected from the 85 TVET institutions, gives the following feedback regarding the institution's responsiveness to TVET programmes.

Figure 6.1 provides the reasons given by respondents on how TVET programmes respond to industry needs. The responses show that, 29.4% of TVET programmes meet industry needs since it is based on the curriculum for Competency Based Training (CBT); 19.5% indicated that CBT has helped programmes to be tailored towards industry needs. However, 9.8% indicated that there was no visible linkages between TVET programmes and industry. Other negative reasons provided were: lack of collaboration, lack of industry engagement in tertiary institutions, few programmes have direct relation to industry needs and old methods of skills delivery.

Figure 6.1: Responsiveness of TVET Programmes to Industrial Needs

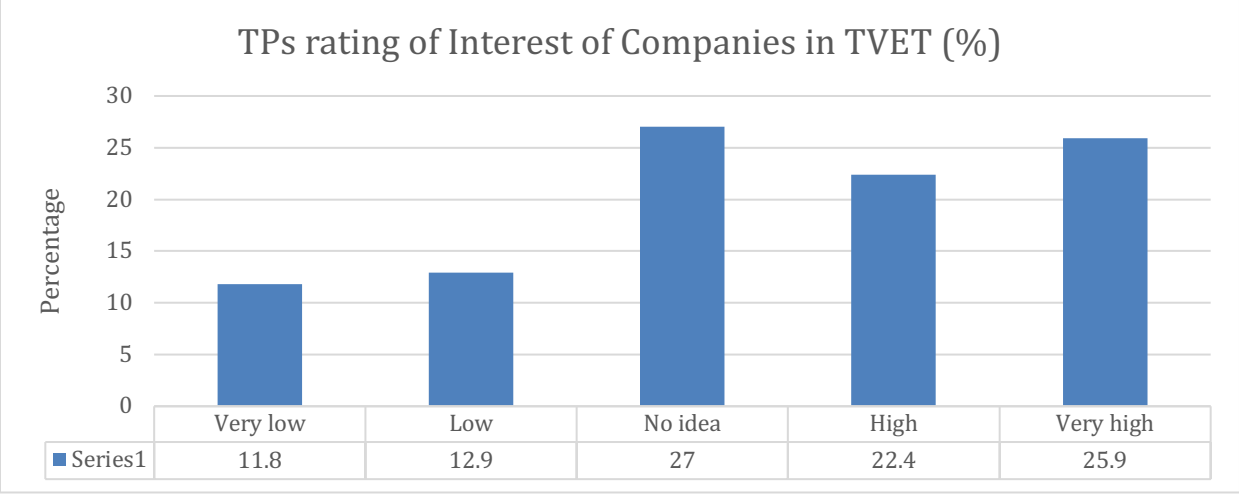


Source: CTVET field data, 2021

Companies' Interest in TVET

Figure 6.2 shows the ratings of Training Providers on companies' interest in TVET. Approximately twenty-six % rated companies interest in TVET to be very high, 22.4% rated it high, 12.9% rated it low and 11.8% rated it very low. However, 27.1% stated that they do not know about the interest of companies in TVET.

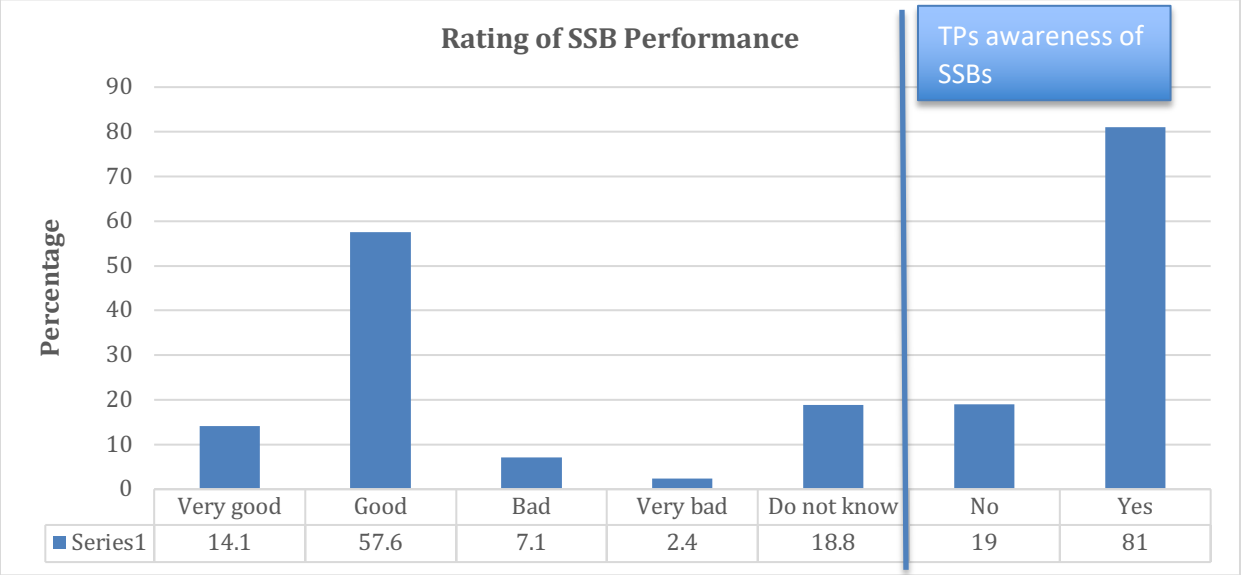
Figure 6.2: TPs rating of companies' interest in TVET



Source: CTVET field survey, 2021

The Training Providers' awareness of the existence of the Sector Skills Bodies in the TVET landscape was assessed. This was rated and the figure below depicts that.

Figure 6.3 TPs rating of the performance of SSBs



Source: CTVET field survey, 2021

Figure 6.3 is in two folds. The section on the right shows the awareness of TPs of SSBs whiles the section on the left provides ratings on the performance of SSBs. From the figure, 81.0% of TPs indicated that they were aware of the existence of SSBs whiles 19% said they were not. Of the 81.0%, 14.1% rated the performance of SSBs as "very good", 57.6% rated it as good, 7.1% rated it as bad and 2.4% rated it as very bad. However, 18.8% could not provide any ratings.

6.6 Collaboration between TVET Institutions and Industry

The transition of graduates to industry is very crucial. Some factors are considered decisive to ensure smooth transition of graduates to industry. Among these factors are:

- **Collaborative partnership:** Collaboration is being done between TVET institutions and industry to prevent disconnection between TVET institutions and industry to ensure graduates function effectively in the job market. This creates a friendly relationship that makes it easier for one to approach the other for help.
- **Competency based Training Curriculum**: There is the need for the kind of curriculum that meets industry needs. Industry should at all times be involved in the development of training packages that equip trainees with the right skillset to meet the demands of industry.
- **Workplace Experience Learning**: This is an industrial attachment to industry that gives learners the opportunity to apply what they have learnt in school in the industry or a real work situation. WEL is well structured as a part of the programme of study of the learner with credits allocated to them. A learner cannot graduate if he/she fails to take part in

Workplace Experience Learning. WEL is assessed as a crucial part of the training that the learner is undergoing which adds up to their expected competencies. The supervisors at the workplace are responsible for engaging learners in WEL in the industry and also give feedback on the learners to WEL coordinators who also report to Training Providers. Collaboration between TPs and employers ensures that learners are given tasks in industry that have a direct connection to the units they are taught in school. Tasks in WEL are planned for learners with the units they are supposed to cover in mind so that they do not learn outside the scope of their units. Learners are assessed in WEL just as they are assessed in the classroom.

Skills Industry Look Out for in TVET Graduates

There are a number of skills that industry look out for in TVET graduates as stated by Skills Gap Analysis and Audit Report of Healthcare, Logistics & Transport and Textiles & Apparel Sectors (2020). These general skills are:

- Time management skills
- Interpersonal skills
- Practical skills
- IT skills
- Leadership skills
- Communication skills
- Managerial skills
- Working under pressure
- Critical thinking/ problem solving skills
- Discipline
- Attention to detail
- Hard work and commitment to work

According to the Skills Gap Analysis and Audit Report of Healthcare, Logistics & Transport and Textiles & Apparel Sectors (2020), there are a number of skills prospective employers/employers look out for in TVET graduates in the Textile & Apparel industry. Notable among the skills they look out for were creativity skills (16.2%), technical experience/practical experience (13.5%), ability to learn on the job (10.8%) and working without supervision (10.8%) out of thirty-seven (37) respondents. In the Logistics & Transport Sector, notable skills employers/prospective employers considered very important were technical & practical experience (17.2%), driving and experience (17.2%), ability to read and write (10.3%) and customer care/customer skills (10.3%) out of 29 respondents. Lastly, in the Healthcare sector, they pointed out skills they lacked were: practical skills (14.8%) and communication skills (25.9%).. It can be deduced that practical training was mentioned by the three sectors to be lacking in TVET graduates according to employers and potential employers in the industry.

The survey also named some difficult to fill vacancies in the three sectors as:

1. **Logistics and Transport Sector:** heavy duty truck drivers, logistics analysts, distribution managers, flight forwarders, inventory managers, supply chain and logistics coordinators, forklift operators, shipping experts, auto electricians, IT experts, warehouse managers and logistics managers.
2. **Textile Apparel & Garment Sector:** quality control officers, finance officers, chief operating officer, managerial positions, people who have skills in measuring and folding & cutting.
3. **Healthcare Sector:** dispensary technicians and technologists, biomedical scientist (microbiologists and hematologists), specialist nurses, medical technicians, sonographers, radiologists, physiotherapists and midwives.

To bridge the gap between TVET graduates in Healthcare, Logistics & Transport and Textiles & Apparel Sectors and industry according to the Skills Gap Analysis and Audit Report (2020), there is the need to:

- Place more emphasis on digitization and the use of ICT
- Make industrial attachment/WEL compulsory
- Introduce artificial intelligence courses in TVET
- Introduce, enrich and upgrade some TVET-focused courses in those sectors
- Encourage community engagement

6.7 The Role of Industry in Workplace Experience Learning (WEL)

Workplace Experience Learning is a recognized programme that delivers a significant amount of learning in a real workplace situation. Workplace Experience Learning helps trainees to put all they have learnt to practice in industry. Industry is helping in diverse ways to give trainees the opportunity to work in industry while they are in school to equip them with the necessary skills to be effective and efficient in the job market. Industrial participation in Workplace Experience Learning helps trainees to understand the work culture of their future workplace. It helps trainees to build a working experience that makes them marketable in the job market. It also helps to give an alternative learning environment to other types of learners. For WEL to take place and be successful, Training Providers, WEL Coordinators at TPs, Learners, Employers and Workplace supervisors all have key responsibilities to play.

Training Providers (TPs) provide the link between the learners and industry. The TPs assign a role to someone who is the WEL coordinator. This person provides information from the TPs, learners and other stakeholders to industry and vice versa. This person acts on behalf of the TP in the industry. The WEL coordinator manages the implementation of WEL. Among the responsibilities of the WEL coordinator is:

- Looking for placements for learners in the industry

- Liaising with industry
- Giving orientation to learners on WEL
- Monitoring the assessment of learners in industry
- The middleman between the TVET Provider, learner and industry
- Providing assistance to the learners and employer during placement
- Promoting WEL programmes to industry

Findings from the chapter on Quality specifically on the topic on Practical/Hands-on programmes revealed that 84.71% of Training Providers offer Workplace Experience Learning (WEL) or internships with industries whiles 15.29% of Training Providers do not offer WEL to their trainees. It is worthy to note that, in Competency Based Training (CBT) WEL is mandatory for any Training Provider (it is important to note that WEL is different from internship. However, TPs seem to use them interchangeably).

Effectiveness of WEL Implementation

Workplace Experience Learning (WEL) is implemented well at the National Proficiency levels. This is because training happens at their workplace/on-the-job and they only come to the theory part in the TVET institutions.

The implementation of WEL at the National Certificate levels is a challenge. This is because:

- Many of the TVET institutions still run traditional TVET programmes. WEL is an integral part of the CBT programmes. Since most of the programmes available to these institutions are not in the CBT format, they are unable to implement WEL. Therefore, the Commission is working hard to have most of the programmes converted to CBT to accommodate WEL.
- There is also the unwillingness of industry to offer placement for trainees to undertake WEL. They are reluctant because of assumed responsibility, additional cost and time required to train the trainees.
- Inadequately trained industry facilitators and supervisors to support the implementation of WEL.
- Industry prefers to employ workers with the right experience who are ready to work instead of engaging inexperienced trainees for WEL.

6.8 Involvement of the Informal Sector in Skills Development

Informal sector apprenticeship training is very well established and common in West Africa. According to Breyer (2006), informal apprenticeship training accounts for about 80-90% of all skills training in urban areas in Ghana. This situation has not changed as at the close of 2021. The Commission through the Ghana TVET Voucher Project (GTVP) is expanding access to TVET in the informal sector. The Voucher project is implemented in collaboration with the German Government and its development organization KfW.

Eighty percent (80%) of the working population of Ghana are in the informal sector. This sector has most of the labour force with bad working conditions and low remuneration. There is also high income insecurity in this sector according to Osei-Boateng & Ampratwum (2011). This is to say the informal sector provides jobs for some reasonable number of Ghanaians in the urban areas and normally one of the first training grounds for some skills development. The informal sector is the preferable option to work for TVET graduates. There are some mastercraft persons in the informal sector who meet the demands of industry but do not have certificates to gain employment.

As part of efforts to collaborate to improve TVET in the informal sector, the Commission for TVET as part of their mandate to streamline the Assessment and Certification system for TVET and also for quality assurance in the delivery of its qualifications has introduced the Recognition of Prior Learning (RPL).
RPL is being supported by the Ghana Skills Development Initiative (GSDI) Phase Four which is a project commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) under the Programme for Sustainable Economic Development (PSED) in collaboration with the Commission for Technical and Vocational Education and Training. It has three components namely:

- Technical and Vocational Education and Training (TVET)
- Finance Systems Development
- Migration and Employment Promotion

The TVET component has ATVET Implementation, Recognition of Prior Learning and Competency Based Training Material Development for the Construction Sector.
Narrowing down to the Recognition of Prior Learning (RPL), at time of the report, the PHASE ONE (1) has been done. The Phase ONE (1) was on Technical and Administrative Documentation. This involved Capacity building for all stakeholders. The capacity building was done in three regional divisions across Ghana. The other capacity building was done for the selected staff of the Commission of TVET. This was organized for two groups of selected people in the Commission of which each session lasted for three (3) days.

Recognition of Prior Learning, gives the opportunity to the informal sector to get certification for their skills. This policy assesses the prior skills, knowledge and experience acquired informally, non-formally or even formally to duly recognize competence against a set of standards or learning outcomes. This certification gives them the opportunity to seek employment in the 'formal' industry as well. Where they want to work as entrepreneurs, this certification gives weight to their competence. This policy is directly connected to the National TVET Qualifications Framework (NTVETQF) outcomes. The introduction of RPL is to make it easy for learners in the informal/non-formal sector to move smoothly onto the NTVETQF.

Projects by NVTI with Development Partners

- The Ghana Institution of Engineering (GhIE) in collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the National Vocational Training Institute (NVTI), Vodafone Ghana Limited, Consolidated Bank Ghana Limited (CBG) and Bosch established the Professionalization of Artisans Project (ProfArts). The program envisages enrolling 20,000 artisans from all over the country. The program is expected by its completion to transform artisans in the construction industry into a viable, professional, well-resourced and capable work force. This is expected to transform their economic wellbeing as well as improving the reliability and quality of their work output.

Migration and Employment Promotion (MEP) is a Project run by NVTI in partnership with the German Development Agency (GIZ) to provide short term training for Ghanaians returning from the Diaspora and Potential migrants. This project focused on areas with high migration rates like Greater Accra, Ashanti and Bono Regions to train returnees and potential migrants with employable skills.

Introduction of Competency Based Training (CBT) to the Informal Sector to Modernize Traditional Apprenticeship

Cooperative Apprenticeship Project was done between 2012 and 2016 in collaboration with the Commission for TVET. This was a project under Phase I and II of the Ghana Skills Development Initiative that sought to modernize vocational training in the informal sector by upgrading traditional apprenticeship schemes in five sectors namely – Garment, Electronics, Automotive, Cosmetology, and Garment. This project was done between 16 training Providers and 9 Trade Associations.

The kind of training that masters give their apprentices is the traditional way of training in which an agreement is made between the master and apprentice for an average period of three (3) years. There were some disparities regarding how each master taught and assessed their trainees.

CHAPTER VII

INTERNATIONAL COOPERATION

7.0 Introduction

This section presents information on the collaboration between Ghana and its Development Partners in the areas of TVET delivery. The chapter also provides data on the various areas of interest and the project implemented in the TVET sector under international cooperation as indicated in table 7.1. The chapter also looks at the different forms of engagement between the Commission for TVET and other stakeholders of the TVET sector in Ghana with international partners.

7.1 Development Partners involved in the TVET Sector

Over the years, Ghana has benefited from the support and collaboration of many Development Partners towards the implementation of TVET. Key among the Development Partners and Agencies that are involved in the sector are: the World Bank, GIZ, KfW, African Development Bank (AfDB), UNESCO, BMBF, GOVET, BIBB, the European Union, , Konrad Adenauer Stiftung (KAS), NUFFIC, Mastercard Foundation and AUDA-NEPAD among others.

The areas of collaboration and support include technical, projects, and policy support. Details of the projects implemented under international cooperation as of November 2020 is presented in table 7.1. In most cases, some Development Partners are associated with specific project areas, however, in a few occasions, a number of DPs/Agencies pull resources to support a single project.

7.2 Other areas of international cooperation

In addition to the areas of international cooperation presented in table 7.1, the Commission for TVET is collaborating the following critical areas.

7.2.1 The Ghana Jobs and Skills Project (GJSP)

To support the Government's top-priority agenda of upgrading skills among the country's population, creating more and better-quality jobs, and improving job outcomes for youth, the World Bank approved US$ 200 million financing in July 2020 for the Ghana Jobs and Skills project. The project will be implemented from 2020-2025.

The Development Objective of the project is to support skills development and job creation in the country. The project supports the Government's prioritized skills development and job creation agenda, through five components:

a. Component 1: Provision of apprenticeship training for jobs (US$60 million)
b. Component 2: Provision of entrepreneurship and micro and small enterprise support for jobs (US$100 million)
    i. Sub-Component 2a: Provision of entrepreneurship training and competitive business start-up grants to individuals for jobs

ii. Sub-Component 2b: Provision of competitive grants to private enterprises for expanded employment

c. Component 3: Operationalization of the Ghana Labor Market Information System, upgrading of district PECs and services, and independent performance reviews of Government youth employment and skills development programs (US$30 million)
d. Component 4: Capacity development, technical assistance, and project management support for enhanced skills and jobs impact (US$10 million)
e. Component 5: Contingent emergency response component (US$0 million): The US$0 million provides the indication that some money will be allocated for emergencies should they occur, but no budget is allocated now since there is no such thing.

7.2.2 World Skill International

In line with the skills demand for future skills set for the Fourth Industrial Revolution, the Ministry of Education through the Commission for TVET joined the WorldSkill International (WSI) in 2019 (supported by GIZ). The WSI is a body with 85 member countries constituting about two-thirds of the world population with a common goal to empower young people with the power of skills. Empowerment through skills development initiatives addresses both social and economic development challenges as well as promotes human development. Thus, it promotes a holistic approach to sustainable development.

The commitment to invest in TVET is an indication that, national policies recognize the importance of skills development. The rationale for WorldSkills is to ensure that the employable skills of young people are well developed and improved through Skills Competition and Capacity Building. Additionally, it is to ensure that the quality and innovation in practical employment-oriented skills development are well developed, implemented, and linked to the sustainable development goals and national skills development initiatives.

The WorldSkills International (WSI) comes as a second layer to strengthen the strides in the skills development. WorldSkills is the global hub for skills excellence and development. It has built a movement that is changing the lives of young people through skills and international cooperation and development between industry, government, organizations, and institutions. WorldSkills promote the benefits of and need for skilled professionals through grass-roots community projects, skills competitions, and knowledge exchange.

7.2.3 Role of WorldSkills Ghana (WSGh) in Ghana TVET Delivery

The WorldSkills Ghana is expected to perform the following roles;

a. Inspire world-class excellence in skills development and introducing the youth to a variety of skilled careers
b. Capacity Building: introducing TVET Education system to exchange skill development programmes to enhance delivery

c. Engagement of facilitators to be trained in understanding of their role as Experts/Judges/ Technical Support in applying WorldSkills Standard Specification (WSSS)[1]
d. Skills Competition which aims at inspiring world-class excellence in skills development

7.2.4 Achievement under the WSI

In spite of the many challenges encountered in organizing zonal skills competition, the Commission for TVET-WSGh was able to attain the feet of the zonal competition in October, 2020. In all about 14 skills were put into competition involving 239 participants. This number includes Competitors (C), Compatriot Experts (CE), and Experts (E), Technical support (TS), Media Personnel (MP) and Event Managers (EM).

The zonal skills competition was designed to achieve three key objectives. These are;

a. Sensitization on the use of WorldSkills occupation standard specification (WOSS) among participants
b. Capacity building for CE, and E
c. Selection of Skill Teams for National Competition

7.2.5 Capacity building with WorldSkills Russia

The Commission has collaborated with the WorldSkills Russia in training and competition in Future Skills Camp 2020 in 14 skills from June to August 2020.

a. Additive Manufacturing
b. Building Information Modelling
c. Industrial Design Technology
d. Mobile Applications Development
e. Internet of Things
f. Machine Learning and Big Data
g. IT Solutions for Business
h. Life-cycle Management
i. Drone Operating
j. Digital Capabilities for Business
k. Robotic Welding
l. Digital Factory
m. Quantum Technology

[1] WSSS: Reflect the global occupations or a work role that are represented by the WorldSkills Competition and are changed every two year industry and business worldwide.

7.2.6 Capacity building with WorldSkills Asia

The Commission partnered with WorldSkills Asia to build Skills capacity in Test Projects, Marking Schemes in some selected skills based on ongoing activities in 11 skills areas between July and October 2020.

a. Graphic Design Technology
b. IT Network Systems Administration
c. IT Software Solutions for Business
d. Web Design and Development
e. Mechanical Engineering CAD
f. Drone operation
g. Mobile application
h. Industrial Design
i. 3D Digital
j. Machine Learning
k. Enterprise Information Systems Security

7.2.7 Capacity building with WorldSkills China

The Commission has partnered with China on an online exchange activity for 12 participants in Mobile Application Development in September 2020.

7.3 Ghana-German Cooperation Projects

Cooperation between Ghana and Germany in TVET has been intensified over the past years. A major part of the activities is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and delivered through various implementing organizations. The German Organization for International Cooperation (GIZ) realizes or manages most projects in the German cooperation. Other agencies are Kreditanstalt für Wiederaufbau (KfW), mostly engaged in technical and financial assistance as well as financing mechanism for the Skills Initiative for Africa (SIFA) of AU; sequa gGmbH, steering projects in cooperation between private sector and chambers or trade associations; and DEG, financing mostly infrastructure projects. The Federal Ministry for Education and Research in Germany (BMBF) and the Ministry of Education in Ghana have concluded a cooperation agreement in 2019 and since then have cooperated in the field of TVET. The German Office for International Cooperation in VET (GOVET) has since consulted CTVET with the realization of this TVET report and in organizational development. The BMBF initiative "iMOVE – Training made in Germany" has facilitated the exchange between the Ghanaian TVET sector and German training companies. The Federal Ministry of Economic Affairs and Energy (BMWI) supports the Delegation of German Industry and Commerce (AHK) in Ghana and its activities in strengthening companies' engagement in TVET. It is also, together with Konrad-Adenauer-Stiftung (KAS), engaged in supporting the establishment of Sector Skill

Bodies. Further, there has been a strong cooperation between different partners in Ghana and the Federal State of North Rhine-Westphalia (NRW) in Western Germany, funding projects in the area of environmental protection, recycling, public sector exchange and TVET.

Table 7.1: Development Partner involvement in TVET Sector (as at November, 2020)

No	Development Partner	Project Name	Brief Project Background (incl. Objectives)	Other Collaborating Development Partners	Budget	Priority Sector	Government Partners/ Institution
1	**European Union**	Ghana Skills Development Initiative (GSDI) III. Meanwhile GSDI IV has already taken off.	The Ghana Employment and Social Protection Programme (GESP) is funded through a Financing Agreement under the 11th EDF. It is the main initiative covering the 'employment and social protection' focal area of the ongoing EU-Ghana cooperation (National Indicative Programme for Ghana 2014-2020). It has 4 main components; one of them is dedicated to TVET: Component 3: GSDI III (co-funded by Germany and Switzerland) **Objectives of GSDI III:** • Enhance the institutional coordination, monitoring and legal framework in TVET as well as promote awareness of TVET and agriculture and important employment opportunities; • Develop Occupational Standards and Competency Based Training	- GIZ - SECO	EUR 7,000,000.00	Currently: agriculture and construction	Commission for Technical and Vocational Education & Training (CTVET); Ministry of Food and Agriculture (MOFA)

			programmes for vocational profiles in the agriculture value chains; • Provide capacity building and equipment for selected training providers and link them with informal training providers (e.g.: associations, cooperatives, farmers' groups…); • Build the capacity of informal training providers (e.g.: associations, cooperatives, farmers' groups…); • Support to scale-up the pilot financing system for target groups from the informal and agriculture sectors to access vocational training opportunities				

		Boosting green employment and enterprise opportunities in Ghana	Implemented under the European Union Emergency Trust Fund for Africa (EUTF), the action is aligned with the EUTF overall objective of addressing root causes of irregular migration and displaced persons in Africa, and more specifically its strategic objective n°1 to create greater economic and employment opportunities. SNV and UNCDF's joint action focuses on creating climate resilient communities, addressing skills gaps and increasing access to finance of selected returnees, youth and women, while supporting job creation and self-employment opportunities with a focus on MSMEs creating decent and sustainable jobs. To achieve this, SNV and UNCDF will concentrate on the following results: • R1: Local economies are stimulated and short-term job opportunities for youth, women and returnees are created through	- SNV - UNCDF	EUR 20,000,000.00 (not only for TVET)	Green / circular economy	For R2 (including TVET): Ministry of Employment & Labour Relations, Ministry of Education, Ministry of Youth & Sports, and Ministry of Trade & Industry

			green and climate resilient investments; •R2: Employability and entrepreneurship capabilities of youth, women and returnees are improved in sectors of economic opportunities, for the benefit of green and climate resilient local economies; • R3: Increased access and usage of financial services, leveraging remittances, adapted to the needs of (i) youth, women and returnees benefiting from cash for work schemes and (ii) local communities and MSMEs; • R4: SMEs, offering decent and sustainable jobs to youth, women and returnees, are incubated and/or accelerated and contribute to green and climate resilient local economies.				

2	**DANIDA**	Skills Development Fund (SDF) Programme	The Skills Development Fund (SDF) is a demand-driven challenge fund, which is addressing the skills needs of business enterprises operating in both the formal and the informal sectors of the economy of Ghana. SDF II programme is being implemented from Mid-2016 until December 2020 with a funding of Dkk 95m from the Government of Denmark and USD 1million from the Government of Ghana. SDF supports Ghanaian businesses with new innovative skills training courses as well as business management training and coaching to senior management and supervisors of companies to help improve their competitiveness. The desired outcomes of the funding, which include increased productivity, quality, competitiveness, job creation, and increased incomes should be achieved. This is expected to enhance livelihoods of employers,	None	DANIDA: Dkk 95 m & government of Ghana : USD 1m	Agriculture	Ministry of Education (CTVET)

			employees, business owners and apprentices.				
3	**KONRAD ADENAUER STIFTUNG (KAS)**	Sector Skills Body For Pharmaceutical Industry	The project is aimed at bringing academia, industry and governmental bodies together to determine what needs are relevant to be taught in the TVET schools in relation to the pharmaceutical industry. It is again targeted at linking trainees to the various firms so that they can obtain hands-on training	Delegation Of German Industry And Commerce (AHK)		Health	FDA, Ministry Of Health, Accra Technical University, Kumasi Technical University, Kwame Nkrumah University Of Science And Technology
		SECTOR Skills Body For Automotive Industry	The project is aimed at bringing academia, industry and governmental bodies together to determine what needs are relevant to be taught in the TVET schools in relation to the automotive	Delegation Of German Industry And Commerce (AHK)		Industry	Accra Technical University, Kumasi Technical

			industry. It is again targeted at linking trainees to the various firms so that they can obtain hands-on training				UNIVERSITY
4	**Savings Bank Foundaton for international Cooperation (Sparkassenstiftung für internationale Zusammenarbeit)**	Strengthening Co-operative Credit Unions and other Microfinance Institutions in providing financial services in Ghana.	The Bank of Ghana in ensuring the implementation of sections 56 and 92 (1) of the Banks and Specialised Deposit-Taking Institutions Act, 2016 (Act 930) issued directives on Corporate Governance for the effective management of Regulated Financial Institutions (RFI). As part of the corporate governance directives 2018 (for Banks, Savings and Loans Companies, Finance House Companies and Financial Holding Companies) and also in the Business Rules and Sanctions (for Microfinance Institutions), it is required for Directors and Key Management staff of RFIs to obtain Certification from accredited institutions. In this context, the Ghana Microfinance Institutions	-German Agency for International Cooperation (GIZ) -Konrad Adenauer Foundation (KAS)	n.d.	NBFI sector/microfinance and Capacity development	Bank of Ghana (BoG) Ghana Microfinance Institutions Network (GHAMFIN) Credit Union Association (CUA)

			Network (GHAMFIN), the Credit Unions Association (CUA) and the Sparkassenstiftung für internationale Kooperation have developed and successfully piloted a certification training programme for board members and managers of Credit Unions and Microfinance Institutions. This training programme is competence-based, modular and practically oriented. The training includes different active teaching and learning methods such as trainer input, group discussions, analysis of scenarios, peer learning, peer counselling and others. Objective: to train 200 Board members of CUs and MFIs as well as 60 managers of such institutions across Ghana and to create the organizational framework with GHAMFIN to further sustain the training programme in the industry and to expand it.				

5	**Netherlands Embassy**	AVET (Agriculture Technical Vocational and Educational Training)	It is an Orange Knowledge Program (OKP) NICHCE program. It is fully funded by NUFFIC. The focus is building the capacity of all the agricultural colleges and the farm institute in Ghana as well as revamping the curriculum to be more entrepreneurial and market driven. The Project is implemented in Ghana by CINOP.	NUFFIC CINOP		Agriculture	CTVET, Farm Institutes, MOFA
6	**AUDA-NEPAD**	SKILLS INITIATIVE FOR AFRICA (SIFA)	SIFA IS an initiative of the African Union Commission supported by the German Government to strengthen occupational prospects of young people in Africa. Under SIFA, a Financial Facility has been established to provide funding on a competitive basis for the implementation of innovative and sustainable skills development initiatives. It supports initiatives, which directly engage the private sector, address market needs, and can have a regional impact.	To be determined	Euros 60 m (for 8 pilot countries in Africa)	Public/Private sectors	Ministry of Foreign Affairs, CTVET

9	**Mastercard Foundation**	Transforming Youth TVET Livelihoods for Sustainable Jobs (Design and Technology Institute - DTI)	Support creation of more than 40,000 work opportunities for young people through the delivery of high-quality precision fabrication training, work-readiness and entrepreneurship skills training, and enhancements to the skills and quality of training provided by master craftsmen and technical institutions in Ghana.	CAMFED; NBSSI; Ghana Tech Lab; Kosmos Innovation Centre; Jobberman	$6,902,859	Precision fabrication, manufacturing	CTVET; Ghana Standards Authority; Ministry of Education; Ministry of Employment and Labour; Ministry of Business Development
10	**Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)**	Ghana Skills Development Initiative	GSDI pursues the objective that young job seekers, apprentices, workers and owners of Micro, Small and Medium Enterprises (MSMEs) in selected trades are increasingly trained in a demand-oriented approach. Its approach, the developed Collaborative Apprenticeship Training (CAT), combines both workplace-based training within the traditional apprenticeship system in the informal sector and school-based training modules with selected TVET Training Providers. GSDI is also supporting to the development of Agricultural	EU SECO KfW	11 mio. Euro	Electronics Automotive Garment Making Cosmetology Welding Block Laying and Tiling Electrical Installation Furniture Works Agriculture	Accra Technical Training Center Takoradi Technical Institute Ho Technical University Tamale Tech University Kumasi Technical Institute St. Paul Technical School

			Technical Vocational Education and Training (ATVET) in selected crop areas.				
		eSkills4Girls	The Federal Government of Germany used its G20 presidency in 2017 to put digital inclusion of girls and women on the global agenda and, with the # eSkills4Girls initiative, to focus on the potential that digital change has for development and especially for Empowerment of girls and women can unfold. The promotion of demand-oriented vocational education and training in ICT-related professions in Ghana aims to increase the employment of women in this sector. Basic ICT skills for women also make it possible to narrow the gender gap in the digital world and to give women and returnees the opportunity to		2 mil EUR	Database Software Development Networking	Accra Technical Training Center Takoradi Technical Institute Dabokpa Training Institute Liberty Specialist Institute Kumasi Vocational Training Institute C.Y.O Tech/Voc Institute

			participate socially, politically and economically in order to subsequently make a contribution to sustainable development.				
		Market Entry into Renewable Energy and Energy Efficiency for the Productive Sector (DKTI) - Demand-oriented Vocational Qualification for Renewable Energy and Energy Efficiency in Ghana	One of the main obstacles for the development of the renewable energy (RE) and energy efficiency (EE) market is the lack of qualified specialists who can plan, install and maintain RE and EE solutions. The objective of the project component is therefore to supply the market with the needed skilled workers in this area. For this project actively involves the participation of the private sector, with help of a founded Sector Skills Body, in the creation of a demand-driven occupation in the area of RE/EE. Six carefully selected public vocational training institutions will have the personnel, institutional and cooperation capacities strengthened. Lastly, gender-		5 Mio EUR	Renewable Energy (especially Solar PV) Energy Efficiency	1. Krobea Asante Technical/Vocational Institute, Asokore-Ashanti 2. St. Basilides Technical Institute, Kaleo 3. Kikam Technical Institute, Kikam 4. St. Paul's Technical Institute, Kukurantumi 5. Tema

			sensitive approaches will be developed for the transition into the formal training and also further into (self-) employment.				Technical Institute, Tema 6. Ada Technical Institute, Ada
		E4D	Regional Programme: E4D has since 2015 been promoting local employment and addressing skills gaps in six African countries, including Ghana. It is building capacities of local jobseekers, employees, and local enterprises. The program's target groups include economically disadvantaged populations, such as women and youth. The E4D program develops and implements public-private cooperation projects -with Ghanaian or international companies registered in Ghana- that contribute to bringing people into decent jobs, enhancing incomes and improving employment situations in the context of international investments, and enhancing the business capacity of local companies. The interventions in	Co-Financing (for the regional programme) from the Department for International Development (DFID) - up to March 2020, Norwegian Agency for Development Cooperation (Norad), EU, die Korean International Cooperation Agency (KOICA), as well as companies	7.775.000 EUR (in Ghana); 85.6 (regionally)	Agri Business Broader TVET sectors (Masonry, Plumbing, Carpentry, Dressmaking, Electrical Installation, Motorcycle Repair, Solar Installation etc.)	Political Partner: Ministry of Trade and Industry Several private partners and some vocational training institutes

			Ghana focus on strengthening agricultural value chains, with a new focus on aquaculture, as well as improving technical training in vocational institutions. E4D Ghana collaborates with the private sector since 2015 until mid of 2021 to leverage its impact and achieve more sustainable results.E4D is not a conventional TVET reform programme. It has been designed as an operational programme with few systemic institutional capacity development elements, specifically at the (macro) level of policy. It works with vocational institutions depending on partners' interests and locations, particularly with practical short-courses and skills upgrade courses (mainly with NVTI, but also COTVET). Curriculum development with the private partner takes place, but not on CBT level. E4D supports the dialogue on women promotion, particularly in male-dominated trades (e.g. 'Women in TVET Conference' and	such as Royal Dutch Shell, Tullow Oil plc, Rio Tinto und Quoniam Asset Management.			

			documentary jointly with COTVET.				
11	**KfW**	Ghana TVET Project Phase I and II	Overall Objective: Improve skills, competencies and productivity of Ghanaian informal sector. Specific Objectives: Improve access to TVET 2. Strengthen TVET institutions / stakeholders; and 3. Establish consistent incentive system for Training providers	GIZ	Phase I EUR 10.0 Mio, Phase II Euro10 Mio, Phase III is for the establish ment of Centre of Excellence for Green Technologies at Kumasi Technical Institute. and Phase IV EUR 20 Mio	Education and skills development	Ministry of Education / Commission for Technical, Vocational Education and Training (CTVET)

12	**Delegation der Deutschen Wirtschaft in Ghana (AHK Ghana)**	Sector Skills Body (Automotive and Pharmaceutical Industry)	Establishment of Sector Skills Bodies. i.e. Bringing together relevant stakeholders who accurately represent the relevant sector. These SSBs are composed of industry, academia and Government, to ensure the right skills development measures are being developed. The core task of the SSBs is to detect professions within their sector, as well as skills gaps, help develop curricula and be of assistance to MoE and other Ministries in terms of policy making/adjustment.	Konrad-Adenauer-Stiftung (KAS)		Automotive, Pharmaceuticals	CTVET, Ministry of Education, Ministry of Transport , Ministry of Trade and Industry, Chamber of Pharmacists , Accra Technical Training Centre, Design & Technology Institute Accra , Robert Bosch Ghana, Scania, AAAM, VDA, Volkswagen
13	**African Development Bank**	Eastern Corridor Road Development	The road Project seeks to is to contribute towards an efficient transportation system that promotes Ghana's ports and corridors, enhance inclusiveness,	JICA will build a bridge over a section of the road corridor and	USD 1.0 million (for the TVET Skills and entrepreneuri	TVET skills and entrepreneurial training for the youth in	Ministry of Roads and Transport, Ministry of Education,

		Programme - Phase 1	stimulate socio-economic development and facilitate domestic and regional trade and integration. The Project is integrated with community development services and skills development for the youth. The community development component focuses on addressing the immediate needs of the communities located along the project corridor. It emphasizes selectivity, integration and prioritizes support to three subcomponents including: i) Skills Development: The project will train about 1, 500 selected youth and women in the community to enhance their employability and entrepreneurship. Specifically, the project will train construction gangs to avail services to the roads constructor and thereafter other constructions such as artisans, auto related services and other entrepreneurial occupations.	OFID will support the road works	al training only)	the beneficiary communities	Ministry of Health and Ministry of Trade and Industry

		Strengthening the financing pillars of the Entrepreneurship Ecosystem in Ghana	The project seeks to support the strengthening of the financing pillars of the Entrepreneurship Ecosystem in order to create an entrepreneurial ecosystem that facilitates access to finance for women and youth start-ups and MSMEs	Project funded by the Youth Entrepreneurship and Innovation Trust Fund- (Norway, Denmark, Sweden, Netherlands and Italy)	USS 400,000	Improving Access to finance and markets for Youth Start Ups / MSMEs Mapping and facilitating access to relevant information on available tax reliefs and incentives for women and youth led start-ups / MSMEs	Ministry of Trade and Industry/NBSSI
		Strengthen the capacity of Enterprise Support Organizations (ESOs) to support	Capacity building and mentoring activities for 50 ESOs through webinars, online training and market studies	Swiss State Secretariat for Economic Cooperation (SECO)	US$ 100,000	Organize Webinars, Assess & Document entrepreneurship development and	ESOs

		Ghanaian innovation and entrepreneurship				performance in different sectors in Ghana during the Covid 19 pandemic and engage with entrepreneurs and provide BDS to ESOs online. Provide BDS services online to entrepreneurs and to ESOs in specific sectors of the economy. -Strengthen fund management capacity in Ghana in support of innovation and entrepreneurs	

						hip and of Government of Ghana social and economic development goals - Strengthen the capacity of ESOs to support Ghanaian innovation and entrepreneurs hip related to digital economy & 4th IR technologies - Strengthen the capacity of Youth led startups and SMMEs in high value agricultural sectors	

		Rural Enterprise Programme	Overall objective of REP is to increase the number of rural micro and small enterprises that generate profit, growth and employment opportunities.	International Fund for Agricultural Development (IFAD)	2019 Budget for TVET (US$ 0.5 million excluding the construction and recuring costs related to RTF (Rural Technology Facility)	Agri-processing	MOTI, NBSSI and GRATIS Foundation
14	**ILO/Norway**	Skill-UP Ghana	Support to constituents on skills development systems, strategies and programmes to reduce skills mismatches and enhance access to the labour market. In Ghana, the project focuses on: 1. Strengthening the skills development system at national level - establishment of a framework for the implementation of Sector Skills Bodies - SSBs (sector-level institutional structures of skills governance are based on partnerships among the Government, private sectors and other stakeholders), structuring SSBs – implementation,				

			development of a strategy and an action plan. 2. Improving the skills development system to better match current and future labour market needs at sector level – training and implementation of skills needs identification and anticipation. 3. Making the skills system more inclusive – inclusiveness strategy development				

Source: Adapted from Development Partners' database with CTVET, 2020

CONCLUSION AND POLICY RECOMMENDATIONS

The discourse in the earlier chapters indicate that, this Ghana TVET Report covered almost all aspects of skills development in the TVET landscape. This spreads across TVET Governance and Management, Access, Quality and TVET Financing in the public, private and the informal sectors. The role of development partners, future skills and industry engagement/involvement have all been captured. The document sought to achieve the objectives below:

- Providing timely and reliable TVET data for effective policy planning and decision making;
- Informing all stakeholders on the developments in the TVET landscape;
- Providing policy advice on the state of TVET to Government.

The report subsequently outlines some policy recommendations for consideration. Below are the recommendations:

Table 8.1: Policy Recommendations

SN	ISSUES EMANATING FROM THE REPORT	POLICY RECOMMENDATIONS
1	Funding for TVET interventions and programmes is inadequate.	• The Ministry should increase budgetary allocation for the TVET subsector. • Subventions to TVET sector should be increased to provide adequate infrastructure, ICT facilities, workshops, tools and equipment, logistics etc. • Bursary and credit facilities should be made available to learners in STEM/TVET. • Special fund should be set aside by the Ministry to strengthen TVET and industry linkages. • More partnerships should be built between institutions and industries locally and internationally. • More training facilitators should be employed to enhance teaching and learning in training institutions.
2	Quality TVET Delivery needs to be strengthened and sustained.	• Increase certification and quality assurance among all TPs • Workplace Experience Learning (WEL) programme should be emphasized in all TVET institutions to improve the practical skills of learners. • National regulations on RPL should be legally formalized to enable informal and non-formal learners to be assessed and their skills/competencies recognized. • Greening TVET should be enforced in all schools and institutions.

		• Training Institutions must endeavor to ensure implementation of internal quality assurance.
3	Only 1 out of 28 training institutions devoted to Persons Living with Disabilities (PWDs) is dedicated to the provision of TVET	• More Special schools should be dedicated to TVET. • Disability friendly tools and equipment should be made available to these institutions to enable them deliver. • All TVET institutions should be prepared to accommodate learners with special needs and offer inclusive TVET.
4	The world of work is constantly being disrupted specifically by Technology.	• Information Technology should be an integral part of CBT whilst making use of digital platforms to empower learners to fit into the future of work. • Improve ICT facilities at Training Providers' and increase competences of trainers.
5	Perceptions about TVET is gradually changing as investment in the sector seems to be paying off.	• More interventions are needed to increase and improve enrolment, teaching, and learning (instructional delivery) • Quality TVET programmes should be introduced to make the sector attractive to investors and stakeholders.
6	There are no accredited institutions in Oti, Bono East, Ahafo and Savannah Regions	All TVET institutions are to get accredited.

APPENDIX 1: LIST OF TRADES FOR GES TIS & N.V.T.I.

SECTOR	TRADE AREA (GES TIs)	TRADE AREA (NVTI)
Engineering	Autobody Works	Construction Machinery Mechanics
	Motor Vehicle Engineering	Fuel Injection Pump Mechanics
	Welding and Fabrication Technology	Motor Vehicles Electricals
	Diesel Mech/Heavy Engine, Heavy Duty	Motor Vehicle Body Repairs
	Industrial Mechanics	Spray Painting
	Mechanical Engineering Technology	Marine Fitting
	Small Engine Repairs	Engine Attendant
	Electrical Engineering Technology	Earthmoving Equipment Operating
	Electrical Machines/ Motor Rewinding	Tractor Operating
	Agricultural Mechanization Technology	Diesel Electricals
	Refrigeration and Air Condition Technology	General Welding
	Electronics Engineering	Welding Arc
	Printing	Welding (Gas)
	Computer Technology	Sheet Metal Works
	Information Technology	Pattern Making
		Mechanical Engineering Fitting
		Maintenance Fitting
		Bench Fitting
		Blacksmithing
		Boiler Maintenance
		Business System Servicing

		Machining
		Lathe Turning
		Engine Reboring
		Moulding
		Driver Mechanic
		Heavy Duty Mechanic
		General Electricals
		Construction Electricals
		Electrical Motor Rewinding and Repairing
		Linesman (Power)
		pLinesman Telephone
		Radio/ Tv And Electronic Servicing
		Computer Hardware Servicing
		Cable Jointing Power
		Cable Jointing Telephone
		Hardware
		Bicycle Repairs
		Software
		Car Air- Conditioning
		Mobile Phone Repairs
		Aluminium Fabrication
		Installation and Maintenance
		Tyres Alignment
		Wheel Balancing
		Pneumatic Breaker
		Crane
		Compactor Roller
		Backhoe

		Excavator
		Forklift
Building	Creative Art Technology	Painting and Decoration
	Plumbing & Gas Fitting Technology	Painting (Signwriting)
	Furniture Design & Construction	Painting (Structural)
	Wood Construction Technology	Spray Painting (Furniture)
	Building Construction Technology	Carpentry and Joinery
	Architectural Drafting	Cabinet Making
		Upholstery
		Masonry
		Tile Laying
		Steel Bending Pro
		Building Draughtsmanship
		Sawn Mill Machine Operating
		Saw Doctoring
		Concrete Slab
		Micro Flash
		Terrazzo Works
Hospitality / Fashion	Cosmetology	Dressmaking
		Needle Work & Craft
	Fashion Design Technology	Tailoring
	Hospitality & Catering Management	Orthopaedic Seam Stressing
	Textiles	Orthopaedic Tailoring
	Tailoring	Textile Handweaving
		Textile Decorating
		Cookery
		Waiting
		Leather Works

		Shoemaking
		Rural Crafts (Rope Work)
		Rural Craft (Cane Work)
		Hair Plating
		Hairdressing
		Barbering
		Pottery and Ceramics
		Sculpture
		Health Care
		Carving (Wood)
		Floral and Balloon Decoration
		Cake Decoration and Sugar Craft
		Baking
		Pastry
		Soap Making Cake
		Soap Making Powder
		Bead Designing
		Interior Decoration
		Tailoring (Smock)
Business	Business Secretarial	General Printing (Press)
	Business Accounting	Graphic Reproduction
	Business Information Technology	Hand Composing
		Lithographic Machine Minding
		Book Binding
		Photographic Printing
		Photography (Still Picture)
		Photography (Motion Picture)
		Vulcanising
		Textile Machine Operating
		Riggering

		Splint Making
		Music
		Massage Therapy
		Landscaping
		Scaffolding
		Borehole Drilling
Generics	Mathematics	
	Integrated science	
	English Language	
	Social Studies	
	Technical Drawing	
	Information and communication Technology	

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