CTVET
COMMISSION FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

Ministry of Education
REPUBLIC OF GHANA

Ghana TVET Report

3rd Edition (2026)

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Ghana TVET Report

Scripted by

CTVET
COMMISSION FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

In Collaboration with

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Federal Institute for Vocational Education and Training

under the Auspices of

Ministry of Education
REPUBLIC OF GHANA

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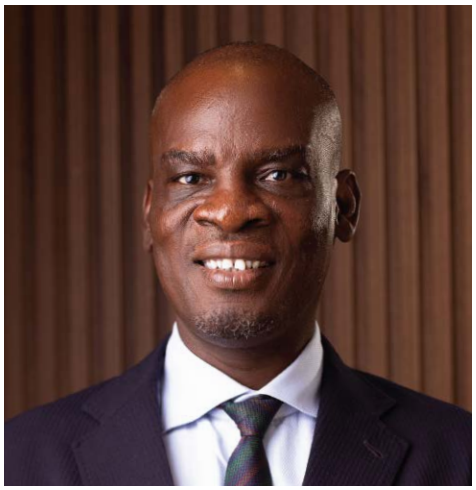
FOREWORD BY THE MINISTER FOR EDUCATION



This publication comes at a critical time in our national development journey, as we intensify efforts to reposition Technical and Vocational Education and Training (TVET) as a central pillar for skills development, job creation, and inclusive economic transformation.

Under the Government's Reset Agenda, education remains a key driver for national progress, and TVET has been elevated as a strategic priority within the Education Sector. This renewed focus reflects our collective commitment to building a skilled, adaptable, and industry-ready workforce capable of supporting Ghana's industrialization agenda and participating competitively in the global economy.

A major milestone in this regard is the development of the National TVET Policy, which provides a comprehensive framework to guide the sector's transformation. The Policy outlines clear pathways for strengthening governance, enhancing quality and relevance, promoting inclusivity, and deepening industry engagement. Its implementation will be instrumental in aligning skills development with labour market demands, while ensuring that no Ghanaian is left behind in the pursuit of opportunities.

The government is also taking deliberate steps to expand access to TVET. In the short term, we aim to increase enrolment from the current rate of approximately 11% to at least 20% of the total secondary education population, thereby opening more pathways for youth to acquire employable skills. This will be supported by targeted interventions, including public awareness campaigns to reposition TVET as a first-choice career pathway, as well as strengthened guidance and counselling systems within our education institutions.

Equally important is our commitment to improving infrastructure across TVET institutions. Investments are being directed towards the development of modern training facilities, the establishment of Centres of Excellence, and the upgrading of existing workshops and laboratories to meet contemporary industry standards. These efforts are designed to ensure that learners are trained in environments that reflect real workplace conditions, in line with Competency-Based Training (CBT) principles.

To ensure sustainable financing for the sector, Government is actively pursuing the establishment of a dedicated TVET Fund to upscale skills training and development to address the growing youth unemployment. This Fund will serve as a critical mechanism for mobilizing and channeling resources to priority areas such as infrastructure development, training delivery, innovation, and support for apprenticeships. It will also enhance our ability to leverage partnerships with development partners and the private sector in a more coordinated and impactful manner.

The Report also highlights ongoing reforms led by the Commission for Technical and Vocational Education and Training (CTVET), including the implementation of Competency-Based Training (CBT), the expansion of Workplace Experience Learning (WEL), the operationalization of Recognition of Prior Learning (RPL), and the strengthening of Sector Skills Bodies (SSBs) to ensure industry relevance in the training of learners. These initiatives are gradually reshaping the TVET landscape, making it more responsive, inclusive, and aligned with national development priorities.

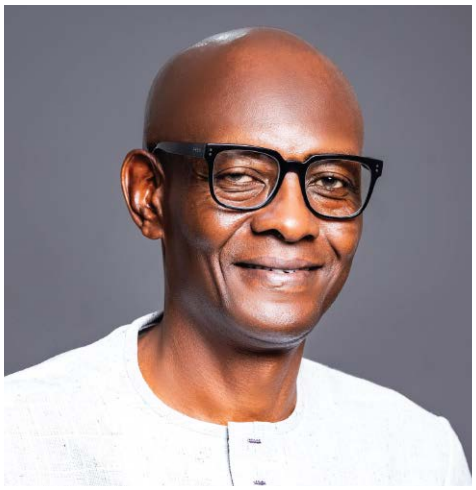
Furthermore, the increasing emphasis on data-driven planning and evidence-based policymaking, as reflected in this Report, marks a significant step forward in the governance of the sector. Reliable data remains essential for tracking progress, identifying gaps, and informing strategic interventions that will yield measurable outcomes.

As we move forward, Government remains committed to working collaboratively with all stakeholders to fully realize the transformative potential of TVET. The success of this agenda will depend on sustained partnerships, innovation, and a shared vision for a prosperous Ghana built on skills.

I commend the Commission for TVET and all partners who have contributed to the preparation of this Report. It is my firm belief that the insights contained in this document will guide policy decisions, strengthen implementation efforts, and inspire renewed commitment to advancing TVET in Ghana.

HON. HARUNA IDDRISU (MP)
MINISTER FOR EDUCATION

PREFACE



It is with a strong sense of responsibility and purpose that we present the Third Edition of the Ghana TVET Report, a publication anchored in the statutory mandate of the Commission for Technical and Vocational Education and Training (CTVET) under the Education Regulatory Bodies Act, 2020 (Act 1023). This Report reflects the Commission's sustained commitment to strengthening the governance, transparency, and effectiveness of Ghana's technical and vocational education and training (TVET) system through credible data, rigorous analysis, and evidence-based insights.

Act 1023 mandates the Commission to develop and maintain a comprehensive national database on the TVET sector, facilitate research and development within the skills ecosystem, and produce periodic reports on the state of skills development in Ghana. This publication, therefore, represents not only a key accountability instrument but also a fulfilment of a core legal obligation. It positions CTVET as the central authority for data stewardship, standard-setting, and strategic coordination within the sector.

The Ghana TVET Report serves as a strategic knowledge product for tracking sector performance, identifying systemic gaps, and informing policy and programme interventions. Drawing on data from a broad range of stakeholders—including training providers, industry actors, development partners, and public institutions—the Report provides a comprehensive and integrated assessment of the TVET landscape in Ghana. In doing so, it reinforces the principles of accountability, coherence, and continuous improvement that underpin a responsive and demand-driven skills system.

A central priority for the Commission is the establishment of a robust and integrated Technical and Vocational Education and Training Management Information System (TVETMIS). The long-term vision is to develop a fully digitalized and interoperable platform capable of capturing end-to-end data across the TVET value chain. Such a system will significantly enhance data quality, accessibility, and utilization, while serving as a critical enabler for evidence-based policymaking, planning, monitoring, and evaluation.

The development of the TVETMIS forms part of a broader digital transformation agenda and reflects the recognition that effective data governance is fundamental to building a modern, agile, and industry-aligned TVET system. By leveraging technology and strengthening institutional data systems, the Commission seeks to equip decision-makers at all levels with timely, relevant, and actionable insights to improve outcomes for learners, enterprises, and the wider economy.

This Report also highlights key reforms shaping the sector, including the clarification of governance arrangements whereby the Commission exercises regulatory oversight—approving policies and programmes—while the TVET Service is responsible for implementation. In addition, the strengthening of Sector Skills Bodies (SSBs) is advancing industry alignment, while the rollout of Competency-Based Training (CBT) and the operationalization of Recognition of Prior Learning (RPL) are expanding pathways for skills acquisition, certification, and lifelong learning. These reforms are critical to building an inclusive, flexible, and demand-driven TVET system that responds effectively to evolving labour market needs.

As the sector continues to evolve, the Commission remains committed to deepening partnerships, enhancing data systems, and strengthening institutional capacity to deliver on its mandate. The transformation of Ghana's TVET system will require sustained collaboration, innovation, and shared ownership across all stakeholders.

The Commission expresses its sincere appreciation to all institutions and partners who contributed data, expertise, and insights to this Report. Their commitment to transparency and collaboration has been indispensable. It is our expectation that this publication will serve as a strategic reference for policymakers, practitioners, researchers, and development partners, and will contribute meaningfully to advancing skills development and inclusive economic growth in Ghana.

MR. ZAKARIA SULEMANA
DIRECTOR GENERAL, CTVET

ACKNOWLEDGEMENT

The Commission for Technical and Vocational Education and Training (CTVET), in collaboration with the Ministry of Education, expresses its sincere appreciation to all institutions, partners, and stakeholders whose contributions have made the Third Edition of the Ghana TVET Report possible. This edition builds on previous efforts and reflects the collective commitment to strengthening Ghana's evidence-based, inclusive, and demand-driven TVET system.

The Commission is particularly grateful to the Honourable Minister for Education for the continued policy direction and strategic leadership provided to the sector. The guidance and oversight of the Director-General, Mr Zakaria Sulemana, have been instrumental in ensuring the successful delivery of this report and in advancing the institutionalisation of a robust TVET data and reporting system.

The Commission acknowledges the invaluable technical collaboration and partnership of the German Federal Institute for Vocational Education and Training (BIBB) and the German Office for International Cooperation in Vocational Education and Training (GOVET). The Commission also appreciates the continued support of other development partners whose contributions have strengthened data systems, validation processes, and analytical depth within the TVET sector.

Special recognition is extended to the Policy, Planning, Projects, Research, Monitoring, and Evaluation (PPPRME) Directorate for leading the coordination, data collection, analysis, and preparation of this report. The contributions of other departments of the Commission, particularly the Standard, Curriculum Development and Enforcement (SCD&E) Directorate and Corporate Affairs Unit, are also duly acknowledged for their technical inputs, validation support, and review of the report.

The Commission further expresses its appreciation to Ministries, Departments, and Agencies, including GETFund, the TVET Service, the Technical Vocational institutions, as well as industry partners and training providers, for their cooperation in providing data and participating in consultations and validation processes.

Finally, the Commission acknowledges all stakeholders whose commitment, collaboration, and responsiveness have contributed to the successful completion of this report. It is our expectation that this Third Edition will continue to serve as a vital resource for policy formulation, strategic planning, and the transformation of TVET in Ghana.

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The Commission recognises the dedication and expertise of the technical team and contributors who played key roles in the development of this report.

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EXECUTIVE SUMMARY

Technical and Vocational Education and Training (TVET) plays a strategic role in Ghana's human capital development agenda, supporting industrialisation, productivity growth, and youth employment. Recent reforms have gained momentum through policy realignment, competency-based training implementation, and expanded institutional coordination led by government agencies. The introduction of the Free TVET policy has significantly improved access to skills training, strengthened participation in technical education pathways, and contributed to increased enrolment at the pre-tertiary level, thereby enhancing workforce readiness.

Ghana, with a population of 35.69 million in 2026 and 73.5% of its population below the age of thirty-six (36), really needs technical skills in key sectors of its economy. Making it more urgent is the high youth unemployment, rapid urbanisation, gender disparities, and rural-urban inequalities. Related to the high youth unemployment is the high poverty levels affecting 39% of the population.

Despite government reforms and interventions such as the implementation of the National Apprenticeship Programme, Free TVET, the National TVET Qualifications Framework, and the implementation of Competency-Based Training, some challenges still linger on following the realignment of all TVET institutions to be under the Ministry of Education. These challenges include TVET infrastructural deficits, outdated equipment in workshops, inadequate industry exposure of facilitators, and difficulties with the successful implementation of Workplace Experience Learning.

The first chapter outlines the study's methodology, involving 3,229 respondents across learners, facilitators, institutional representatives, Parent-Teacher Association (PTA) and School Management Committee (SMC) members, using a mixed-methods approach which integrates quantitative (numerical) and qualitative (descriptive) data into surveys, to assess the current state of TVET institutions in Ghana and provide a comprehensive understanding of institutional conditions, training delivery, and learner participation in the TVET landscape. The report also makes use of secondary data from reliable sources.

The governance arrangement for the TVET sector has the Commission for TVET, TVET Service, University for Skills Training and Entrepreneurial Development (USTED), and Ghana Tertiary Education Commission (GTEC) as the drivers of the TVET sector, with each of them playing specific roles. These institutions collectively provide policy direction, quality assurance, accreditation, and skills development, significantly improving coordination and alignment with national development goals. The chapter highlights the role of PTAs and SMCs in decision-making, accountability, and stakeholder engagement, noting high participation in curriculum and policy matters but limited involvement in industry linkages, career guidance, and job placement.

The section on Access shows that access to TVET has expanded greatly under the Free TVET policy, which has lowered financial barriers and increased participation among youth, especially those from disadvantaged backgrounds. Government actions, like integrating TVET institutions under the Ministry of Education, expanding accredited institutions, and implementing national qualifications frameworks, have improved institutional coordination and learning pathways. However, regional disparities persist due to infrastructure deficits and uneven distribution of training institutions, making targeted outreach and infrastructure development essential for fair participation.

Enrolment trends reflect growing demand for technical skills and rising public confidence in vocational education. Public pre-tertiary enrolment rose from 32,203 learners in 2020/21 to 47,319 in 2021/22, and further to 54,869 in 2022/23. Enrolment into TVET Institutions has increased steadily over time, and it reached 72,200 learners for the 2025/ 2026 academic year.

These figures are an indication that enrolment into TVET institutions has more than doubled within a period of five (5) years. (2020/21 to 2025/26 academic year). This is a reflection of sustained policy reforms and investments in skills development. These developments highlight TVET's growing relevance as a pathway for employment, entrepreneurship, and lifelong learning.

Quality improvements have focused on Competency-Based Training (CBT), occupational standards, and strengthened quality assurance systems. Investments in workshop modernisation, curriculum reform, and trainer capacity development have enhanced the practical orientation of programmes. However, outdated equipment and limited teaching resources in some institutions continue to affect training quality. Sustained investment in modern facilities and continuous professional development for instructors remains critical to ensuring consistency nationwide.

Reforms that aim at improving employability outcomes by aligning skills development with labour market needs have been introduced, and the established Sector Skills Bodies (SSBs) have played critical roles in this regard.

Certification issued on the National TVET Qualifications Framework has strengthened recognition of qualifications in the TVET space, and a lot of MasterCraft Persons and Apprentices are pursuing it. Industry engagement is vital for improving programme relevance. Workplace Experience Learning and apprenticeships provide opportunities for practical skills development, but collaboration with employers remains uneven. Stronger incentives are therefore required to promote employer participation in curriculum design, training delivery, and certification processes.

International cooperation has also played a key role, with development partners supporting reforms through technical assistance, capacity building and funding. Sustaining the gains requires better integration of partner interventions into national policy frameworks.

Emerging priorities such as environmental sustainability and digitalisation are shaping the future of TVET. Green skills development is at an early stage, but opportunities exist in renewable energy, waste management, sustainable construction, and climate-resilient agriculture. Similarly, digital transformation is influencing skills demand, with ICT integration gradually expanding across institutions. Addressing disparities in digital infrastructure and strengthening digital literacy among instructors and learners will be essential for building a responsive system.

Financing remains a cross-cutting challenge. While the Free TVET policy has reduced cost barriers and expanded participation, institutions continue to rely heavily on internally generated funds and limited private sector contributions. Diversified funding sources, performance-based financing, and stronger private sector investment will be critical for sustainability. Importantly, the Free TVET policy contributes directly to Ghana's progress toward the Sustainable Development Goals, particularly SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 5 (Gender Equality), and SDG 9 (Industry, Innovation and Infrastructure). In all of it the establishment of a TVET Fund remains as the main option to achieving sustainable TVET financing for Ghana.

In conclusion, Ghana's TVET system is experiencing steady progress in access expansion, institutional strengthening, and policy coordination. Enrolment growth between 2022 and 2025 reflects increasing recognition of technical skills as drivers of employment and entrepreneurship. However, challenges relating to infrastructure gaps, financing constraints, uneven industry engagement, and disparities in training quality persist. Addressing these issues will require sustained investment, stronger public–private partnerships, improved quality assurance, and enhanced integration of digital and green skills. Strengthening the TVET system will be essential for advancing Ghana's broader development priorities, including youth employment, increased productivity, industrialisation, and achievement of the Sustainable Development Goals.

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

ACTIVATE	Accelerating Change Through Innovation in Agricultural TVET
BEAR III	Better Education for Africa Rise
BIBB	German Federal Institute for Vocational Education and Training
BMBF	German Federal Ministry of Education and Research
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
CAMFED	Campaign for Female Education
CBT	Competency Based Training
CB-VET	Capacity Building in Vocational Education and Training
CTVET	Commission for Technical and Vocational Education and Training
D.Tech	Doctor of Technology
ECO-VET	Ecological Vocational Education and Training
EPA	Environmental Protecting Agencies
ERBA	Education Regulatory Bodies Act
ESP	Education Strategic Plan
EU	European Union
GDP	Gross Domestic Product
GIZ	German Development Agency
GJASP	Ghana Jobs and Skills Apprenticeship Programme
GJSP	Ghana Jobs and Skills Project
GOVET	German Office for International Cooperation in Vocational Education & Training
GTEC	Ghana Tertiary Education Commission
GTVP	Ghana TVET Voucher Project
GWYESCO	Ghana Women and Youth Employment and Social Cohesion
HND	Higher National Diploma
ICBTR	Institute for Competency-Based Training and Research
ICT	Information Communication Technology
IDA	International Development Association
IGPs	Institutional Greening Plans
ILO	International Labour Organisation
IPUs	Institutional Production Units
KfW	Kreditanstalt für Wiederaufbau
LIFBi	Leibniz Institute for Educational Trajectories
LMS	Learning Management System
M&E	Monitoring and Evaluation
MCPs	Master Craft Persons

MIS	Management Information System
MSE	Micro and Small Enterprises
NAP	National Apprenticeship Programme
NC I	National Certificate I
NC II	National Certificate II
NGOs	Non-Governmental Organisations
NP I	National Proficiency I
NP II	National Proficiency II
NTVETQF	National TVET Qualifications Framework
PPE	Personal Protective Equipment
PTAs	Parent-Teacher Associations
RISE-G	Revitalising and Improving Skills for Employment
RPL	Recognition of Prior Learning
SDGs	Sustainable Development
SMC	School Management Committee
SPSS	Statistical Package for the Social Sciences
SSBs	Sector Skills Bodies
TOT	Trainers of Trainers
T-TeI	Transforming Teaching Education and Learning
TVET	Technical Vocational Education and Training
TVETMIS	TVET Management Information System
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	International Centre for Technical and Vocational Education and Training
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USTED	University of Skills Training and Entrepreneurial Development
WASH	Water, Sanitation, and Hygiene
WEE-NORTH	Women Economic Empowerment Through Industrial Trades
WEL	Workplace Experience Learning
WUSC	World University Service of Canada

CONTENTS

CHAPTER 1

INTRODUCTION & BACKGROUND

1.0. INTRODUCTION

Technical and Vocational Education and Training (TVET) has been a major driver of socio-economic growth and development for most economies across the world, and Ghana is no exception. Ghana, a country estimated in April 2026 to have a population of 35,697,557 (Worldometer), has 73.5 of its population below the age of thirty-six (36), making it a very youthful population. The youth between the ages of 15-35 years constitute 38.2%, and children under fourteen (14) years constitute 35.3%. With this population demographics, TVET remains very critical to Ghana's development agenda, and it serves as a powerful tool for economic transformation, bridging the inequality gap, promoting social inclusion, and providing employment opportunities for the youth, women and marginalized groups, such as people with disabilities and disadvantaged communities.

The Government of Ghana recognizes this situation, and it has put in place several strategies that are working to ensure that the Ghanaian youth find themselves in a safe place where they are employable with enhanced livelihoods by equipping individuals with practical, industry-relevant skills. Among the actions taken by the Government is the reformation of Education and specifically the TVET landscape, including the Informal Sector Apprenticeship, and ensuring that the Commission for TVET provides a Ghana TVET Report which reflects the situation of the TVET ecosystem in the country.

The Ghana TVET Report, themed "The TVET System in Ghana: Current State, Challenges, and Opportunities", provides evidence-based analysis of the sector's performance. It highlights the current situation in the TVET space, the constraints, such as infrastructural deficits and financing limitations, whilst identifying opportunities to strengthen national competitiveness, increase productivity and enhance livelihoods.

The Policy priorities include ensuring the full implementation of competency-based training, having a sustainable financing framework such as a TVET Fund, deepening industry partnerships, enhancing quality assurance, and investing in inclusive and gender-responsive programmes.

The report utilises data and perspectives from a wide range of stakeholders within the TVET ecosystem, including learners, facilitators, institutional representatives, and parents through Parent–Teacher Associations (PTAs) and School Management Committees (SMCs). These insights offer an evidence-based understanding of the sector to inform policy decisions and institutional enhancements.

Technical and Vocational Education and Training (TVET) in Ghana has experienced considerable changes over the past decade as part of broader national efforts to boost industrial development, economic diversification, and inclusive growth. A key milestone in this evolution was the establishment of the Commission for TVET, which is tasked with regulating, promoting, and administering TVET to foster innovation, transformation, and sustainable development.

Regarding the development of the TVET Report, the Commission is required by the Act that established it to:

- facilitate research and development within the technical and vocational education and training system.
- develop and maintain a national database on the technical and vocational education and training sector.
- issue annual reports on the state of skills development in the country.

In pursuit of its statutory functions, the Commission lays the foundation for evidence-based policymaking and the continuous improvement of Ghana's TVET system, reflecting a sector marked by enhanced institutional coordination, clearer policy guidance, and a stronger emphasis on quality and relevance.

1.1. Objectives

The third edition of the report seeks to achieve the following specific objectives:

1. To deliver accurate and up-to-date TVET data that supports effective policy planning and informed decision-making.
2. To keep all stakeholders informed about developments and trends within the TVET sector.
3. To offer evidence-based policy recommendations on the state of TVET to the Government.

1.2. METHODOLOGY AND SCOPE OF REPORT

This report adopted a mixed-method and cross-sectional survey design to assess the current state of Technical and Vocational Education and Training (TVET) institutions in Ghana and to capture the experiences of key stakeholders in skills development. The approach enabled the collection of both quantitative and qualitative data and provided a comprehensive understanding of institutional conditions, training delivery, learner participation, and stakeholder perspectives.

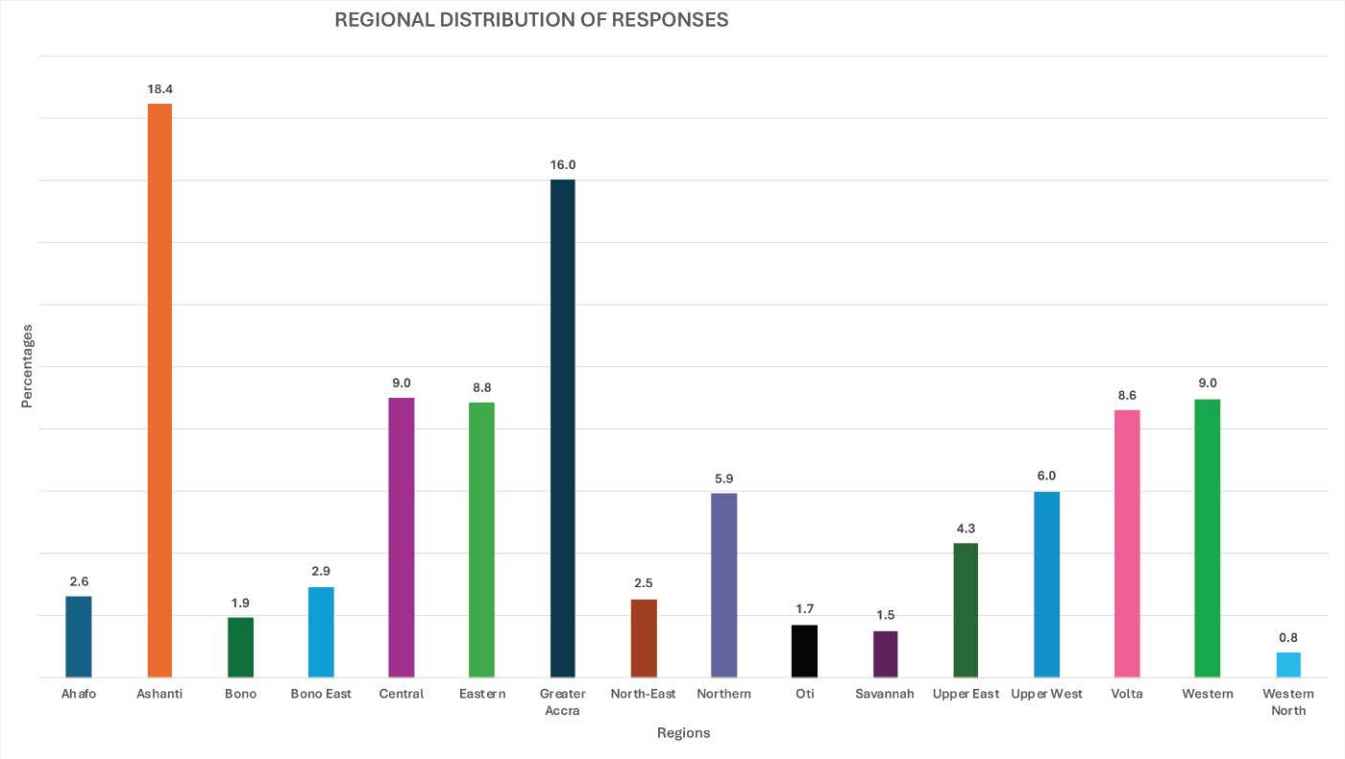
The study focused on four main stakeholder groups: learners, facilitators, institutional representatives, and parents/guardians participating through Parent–Teacher Associations (PTAs) and School Management Committees (SMCs). In total, 3,229 respondents participated in the survey, including 2,090 facilitators from both trade and generic areas, 823 learners, and 113 parents/guardians, ensuring broad representation across the TVET ecosystem. Facilitators represented diverse instructional roles, with 1,174 teaching trade-specific courses and 916 teaching general subjects, allowing for a well-rounded analysis of training delivery. Data were collected using structured questionnaires administered via Google Forms, with tailored instruments for each stakeholder group, incorporating both closed-ended and open-ended questions to capture measurable responses and in-depth insights. The data collection process covered key thematic areas, including governance, quality of TVET

provision, access and gender inclusion, learning outcomes and employability, environmental sustainability, digitalisation, and partnerships with industry.

Following data collection, responses were exported to Microsoft Excel for cleaning and verification, then analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies and percentages, were used to summarise the data, with analysis conducted separately for each stakeholder group to ensure accuracy and clarity. In addition, qualitative data from parents and other stakeholders were analysed thematically to identify key issues, trends, and recommendations. This combined methodological approach ensured a robust, evidence-based assessment, providing a solid foundation for informed policy decisions, strategic planning, and continuous improvement within Ghana's TVET system.

A total of 3,229 respondents participated in the study from the 16 regions in Ghana. The respondents include Principals, Learners, Facilitators, the Parent-Teacher Association (PTA), and the School Management Committee (SMC). This shows a 100% participation across all 16 regions of Ghana. The distribution graph below presents the regional distribution of the respondents who participated in the study.

Figure 1: Regional Distribution of Responses

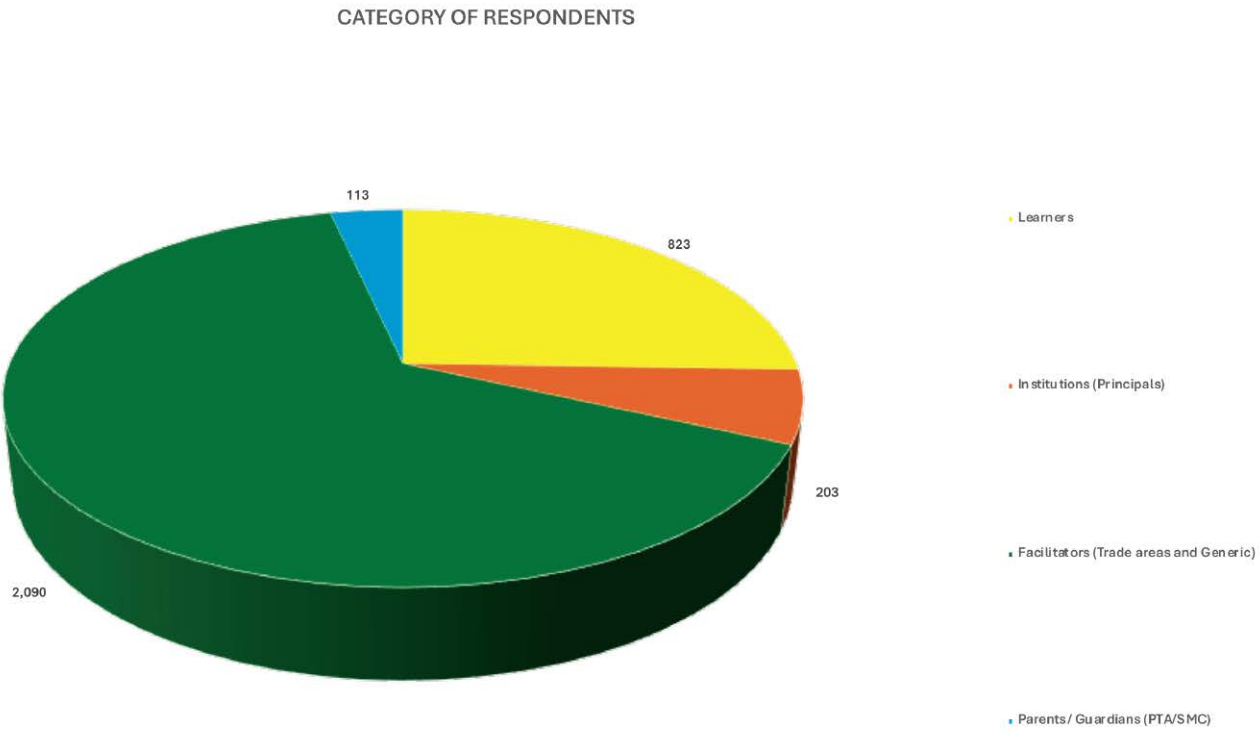


Source: CTVET Survey data, 2025.

The regional distribution of respondents shows an uneven but overall representative participation across Ghana's TVET ecosystem. The Greater Accra Region had the highest response rate at 16.0%, followed by the Ashanti Region at 18.4%, emphasising the concentration of TVET institutions, facilitators, and learners in major urban and economic centres. Moderate participation was seen in the Eastern (8.8%), Central (9.0%), Western (9.0%), and Volta (8.6%) regions, indicating relatively balanced engagement in these areas, likely due to a steady presence of TVET institutions and stakeholders.

In contrast, several regions recorded lower participation rates, including Northern (5.9%), Upper West (6.0%), Upper East (4.3%), Bono East (2.9%), Ahafo (2.6%), North-East (2.5%), Bono (1.9%), Oti (1.7%), Savannah (1.5%), and Western North (0.8%). These disparities may stem from uneven institutional distribution, limited access to TVET programmes, or varying levels of stakeholder engagement across regions. The results highlight a spatial imbalance in TVET participation and a potential imbalance in resource allocation, institutional capacity, and outreach. Overall, the study achieved full regional coverage across the country.

Figure 2: Category of Respondents



Source: CTVET Survey data, 2025.

The distribution of respondents across stakeholder groups is shown above. A total of 3,229 stakeholders took part in the survey. Facilitators from both public and private institutions in the trade and generic sectors formed the largest group, with 2,090 (64.7%) respondents, followed by 823 (25.5%) learners who provided insights into their learning experiences and training environments, and 203 (6.3%) constituted institutions represented by principals. Additionally, 113 (3.5%) parents and guardians, participating through Parent Teacher Associations (PTAs) and School Management Committees (SMCs), offered perspectives on stakeholder engagement and perceptions of TVET.

1.3. LIMITATIONS OF THE REPORT

This report provides a comprehensive assessment of Ghana's TVET system; several limitations were encountered in putting it together. The use of Google Forms came along with its own shortfalls, amongst which are uneven internet access, varying levels of digital literacy, and difficulty in accessing real-time clarification.

Although the data collection tools were carefully developed and pre-tested, refinements were needed during data collection. While pre-testing improved clarity, variations in respondents' understanding of some concepts affected the consistency of responses across stakeholder groups, and therefore, there were some incomplete responses and disparities that required extensive cleaning.

Additionally, the delay in accessing disaggregated enrolment data by region, gender, and programme areas was a major constraint. Despite these limitations, quality assurance measures, including tool validation, data cleaning, and triangulation, were applied to enhance the reliability and credibility of the findings.

1.4. ORGANIZATION OF THE REPORT

The report is organized into nine chapters, each addressing a key thematic area. Chapter One provides an overview, outlines the survey objectives, presents the distribution of responses by region and stakeholder category, and describes the methodology for data collection and analysis, while also setting the context for interpreting the findings.

Chapter Two examines TVET governance, focusing on the legal and institutional frameworks established by the ERBA Acts 2020 (Acts 1023) and Pre-tertiary Acts 2020 (Acts 1049) that created the Commission for TVET, the TVET Service, and the University of Skills Training and Entrepreneurial Development (USTED), as well as the roles, responsibilities, and activities of PTAs/SMCs within institutions.

Chapter Three explores access, gender, and inclusion, analysing participation trends and the extent to which TVET promotes equitable opportunities for diverse learner groups,

whilst Chapter Four focuses on quality in TVET, assessing training delivery in terms of infrastructure, workshops, tools, equipment, and the effectiveness of teaching and learning processes.

Chapter Five presents findings on learning outcomes and employability, evaluating how well TVET equips learners with relevant competencies for the labour market.

Chapter Six addresses environmental sustainability and greening, examining the integration of green skills and environmentally responsible practices in training.

Chapter Seven focuses on digitalisation and partnerships, highlighting the role of emerging technologies, industry collaboration, and stakeholder engagement in shaping the future of skills development and strengthening TVET delivery. Chapter Eight presents findings on financing, whilst Chapter Nine focuses on International Cooperation. Together, these chapters provide a comprehensive overview of the key factors influencing the development, delivery and impact of TVET programmes in Ghana.

By organising the report around these thematic areas, the findings offer a structured and integrated analysis that supports evidence-based decision-making and policy development within the TVET sector.

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CHAPTER 2
TVET GOVERNANCE

2.0. INTRODUCTION

TVET is crucial to a nation's socioeconomic development. 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 industrialisation process. It is a known fact that TVET is an instrument for sustainable development. However, to achieve this, it is important that a robust governance arrangement devoid of any overlaps is established.

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 enhanced productivity, international competitiveness, and economic growth. Enhanced management should ensure that TVET is well coordinated to reduce waste of resources and improve the relevance and retention of training personnel in the country.

This section highlights the current structure within the TVET system and ongoing reforms in the TVET sector in recent years, with a focus on the Commission for Technical and Vocational Education and Training (CTVET), Ghana Tertiary Education Commission (GTEC), Technical and Vocational Education Training (TVET) Service, University of Skills Training and Entrepreneurial Development, Kumasi (USTED).

2.1. GOVERNANCE STRUCTURE OF TVET INSTITUTIONS IN GHANA

Technical and Vocational Education and Training (TVET) institutions in Ghana operate within a multi-layered governance framework under the Ministry of Education, designed to ensure that national policies are effectively implemented to deliver high-quality training. This structure integrates regulatory oversight, institutional management, and stakeholder participation to promote accountability, quality assurance, and system efficiency.

Key institutions within this governance ecosystem include:

- The Commission for Technical and Vocational Education and Training (CTVET)
- The Ghana Tertiary Education Commission (GTEC)
- The TVET Service
- The University of Skills Training and Entrepreneurial Development (USTED), Kumasi.

Parent Teacher Associations (PTAs) and School Management Committees (SMCs) have always played very vital supportive roles, and their contribution to the governance arrangement at the Pre-Tertiary TVET level will be considered under this chapter.

2.1.1. The Commission for Technical and Vocational Education and Training (CTVET)

The Commission for Technical and Vocational Education and Training (CTVET) was established by an Act of Parliament in 2020 (Act 1023). The Act mandates the Commission to regulate, promote and administer technical and vocational education and training for transformation and innovation for sustainable development.

Among the core functions of CTVET are:

a. Formulate national policies for skills development across the broad spectrum of pre-tertiary and tertiary education, formal, informal, and alternative education.

b. Coordinate, harmonize, and supervise the activities of technical and vocational education and training institutions to meet the requirements of both the formal and informal sectors.

c. Develop and implement a national assessment and certification system in the technical and vocational education and training sector.

2.1.2. Ghana Tertiary Education Commission (GTEC)

The Ghana Tertiary Education Commission was established by an Act of Parliament in 2020 (Act 1023). The Act mandates the Commission to regulate, coordinate and ensure quality of tertiary education in Ghana.

Among the core objects of GTEC are to regulate tertiary education in all its forms with a view to promoting:

a. efficient and effective administration and accreditation of tertiary education institutions.

b. advancement and application of knowledge through teaching, scholarly research and collaboration with industry and the public sector.

Also, GTEC shall, in conjunction with:

i. the Commission for Technical and Vocational Education and Training, accredit technical and vocational education and training programmes and institutions at the tertiary level; and

ii. the relevant regulatory bodies accredit professional programmes and institutions at the tertiary level.

2.1.3. The TVET Service

The TVET Service was established by an Act of Parliament, Act 2020 (Act 1049), with a mandate to manage, oversee, and implement approved national policies and programs relating to pre-tertiary technical and vocational education and training.

To achieve the object of the Service, the Service shall

a. Provide technical and vocational education and training service delivery at the pre-tertiary level.

b. Implement the curriculum for Technical and Vocational Education and Training programmes in collaboration with industry and the relevant regulatory bodies.

c. Promote equity and inclusiveness in access and participation in technical and vocational education and training with special emphasis on gender and persons with disabilities.

2.1.4. University for Skills Training and Entrepreneurial Development (USTED)

USTED was established under the Act 2020 (Act 1026) with the aim to:

a. Provide higher education in technical, vocational and entrepreneurial training to develop skilled manpower for job creation and economic development.

b. Train and provide teachers with the relevant competence for teaching in technical and vocational education and training institutions; train and provide teachers with the relevant competence for teaching entrepreneurial development; and develop strong linkages between the University and (i) industry, or (ii) the community, to ensure the holistic training of teachers.

c. The University shall, for the purpose of achieving the aims under subsection (1), determine the subjects to be taught at the University, emphasizing courses of special relevance to the needs of the technical and vocational education and training system for national development.

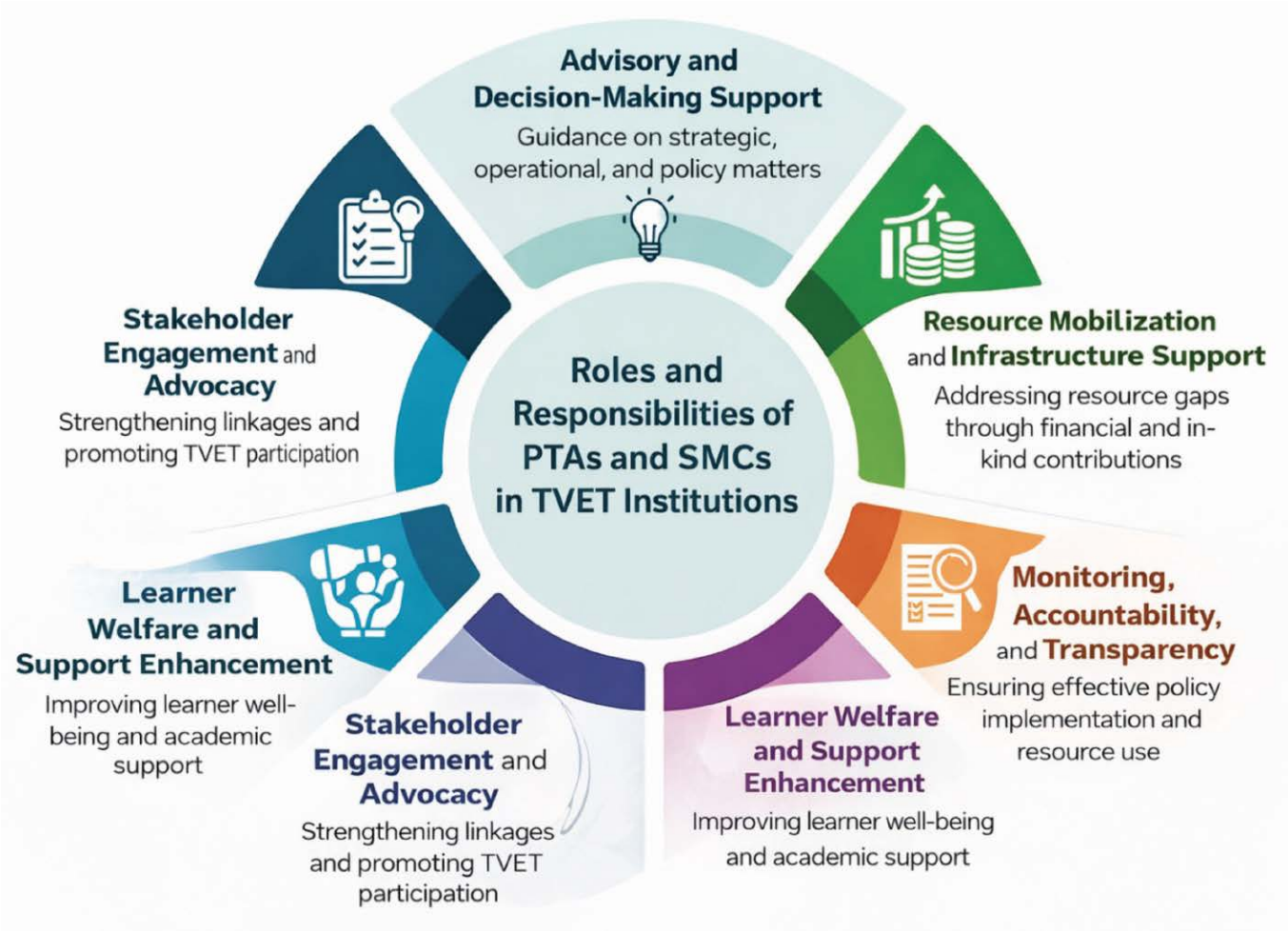
It must be emphasized that these Acts have their clear mandates and do not overlap in any form or shape. The seeming discrepancies could only occur when there is a deviation in the operationalisation of the Acts and or implementation of the mandates. It is therefore very important that the actors in the TVET ecosystem operate within their mandates.

A total of 113 Parent–Teacher Associations (PTAs) and School Management Committees (SMCs) participated in the study. The PTA/SMC plays a critical role in strengthening governance, accountability, and stakeholder engagement within Technical and Vocational Education and Training (TVET) institutions. Within the TVET system, PTAs and SMCs play a complementary role to institutional management and regulatory authorities by offering oversight, advisory support, and community linkage. Their contributions are especially vital in tackling challenges related to resource mobilisation, infrastructure development, learner welfare, and institutional performance, which are fundamental to the quality of TVET delivery.

As key representatives of community and parental interests, their involvement in decision-making processes, monitoring, and institutional support is essential for ensuring that TVET systems remain responsive, inclusive, and aligned with labour market needs. This section examines the extent of PTA/SMC participation across key areas, including curriculum and policy decision-making, governance challenges, monitoring effectiveness, industry linkages, and support for graduate employability. While evidence points to strong engagement in institutional governance and decision-making, it also reveals notable gaps in areas such as parental participation, structured industry collaboration, and career guidance support. These findings highlight the need to strengthen participatory frameworks, enhance communication, and build the capacity of PTA/SMCs to enable them to contribute more effectively to the overall development and performance of the TVET sector.

The Functions and Responsibilities of PTAs and SMCs in TVET Institutions are expressed in the PTA governance framework in Figure 3:

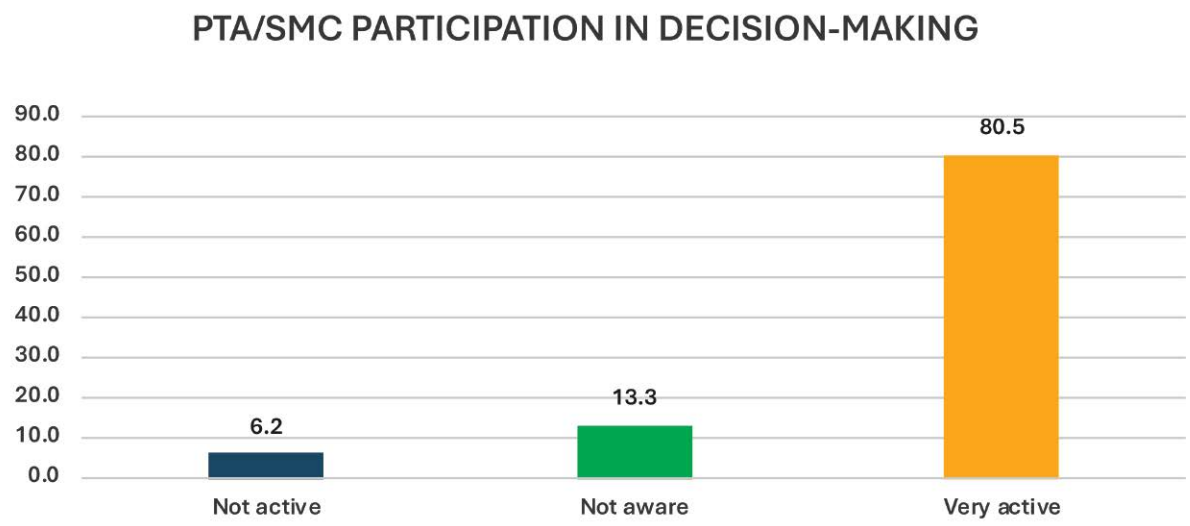
Figure 3: Governance framework for PTA/SMC within the TVET institutions



2.1.5. Participation of Parent–Teacher Associations (PTAs) and School Management Committees (SMCs) in the study.

Parent–Teacher Associations (PTAs) and School Management Committees (SMCs) play an important role in strengthening institutional governance and community participation within Technical and Vocational Education and Training (TVET) institutions. Their involvement promotes transparency, accountability, and stakeholder collaboration in areas such as institutional policy implementation and the monitoring of institutional performance. In addition, PTAs and SMCs can strengthen industry linkages, support learner welfare, and facilitate career guidance and employment opportunities for graduates. Understanding the extent of their participation is therefore essential for assessing the effectiveness of governance structures within TVET institutions. The next graph illustrates the extent of PTA/SMC participation in decision-making on TVET curricula and institutional policies.

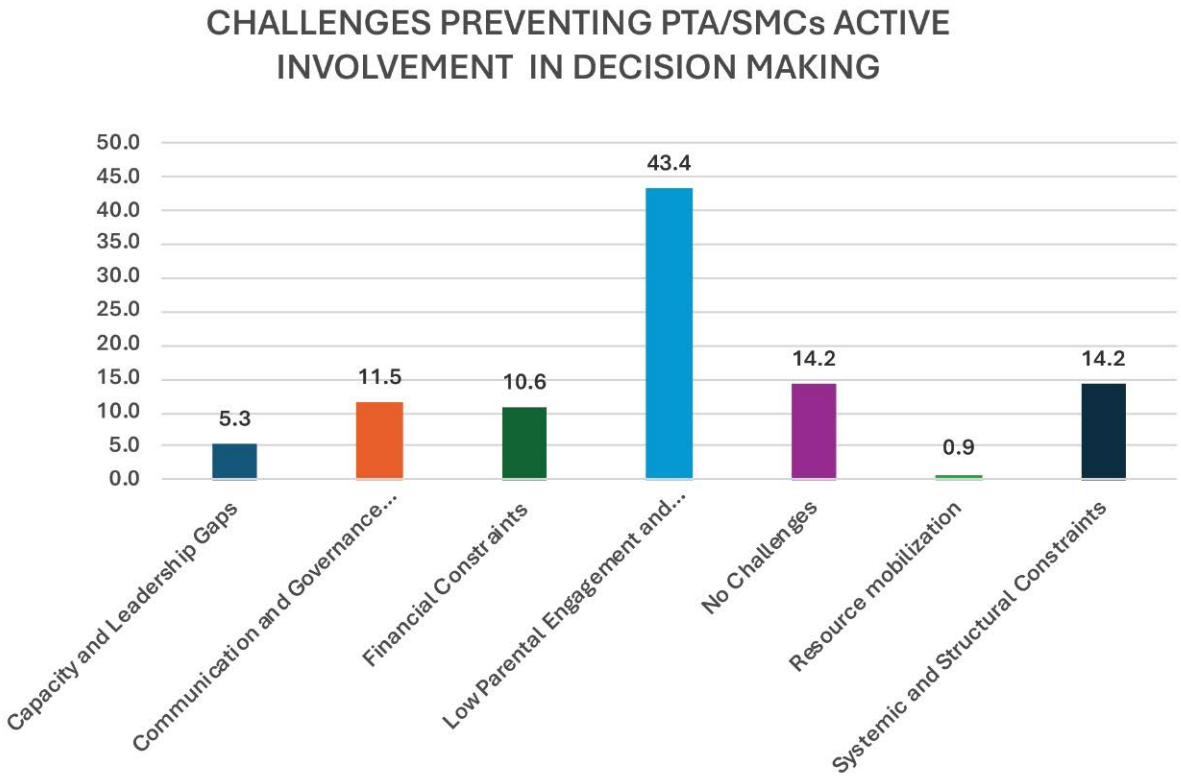
Figure 4: PTA/SMC Participation in Decision-Making



Source: CTVET Survey data, 2025.

The graph indicates a high level of reported participation by PTAs and SMCs in decision-making on TVET curricula and institutional policies. A significant majority of respondents (80.5%) reported that PTAs and SMCs are very active in these processes, suggesting their regular involvement in meetings and policy discussions. Approximately 13.3% indicated they were unaware of PTA/SMC participation, which may point to not being informed about participation opportunities. Additionally, 6.2% of respondents reported that PTAs and SMCs are not active, indicating that, in some institutions, these bodies play no role in decision-making. Overall, while the findings suggest strong stakeholder participation in most institutions, the presence of respondents who are unaware of or do not observe active participation highlights the need for improved participation, clearer governance roles, and strengthened mechanisms to ensure consistent and meaningful involvement of PTAs and SMCs in institutional decision-making across the TVET system.

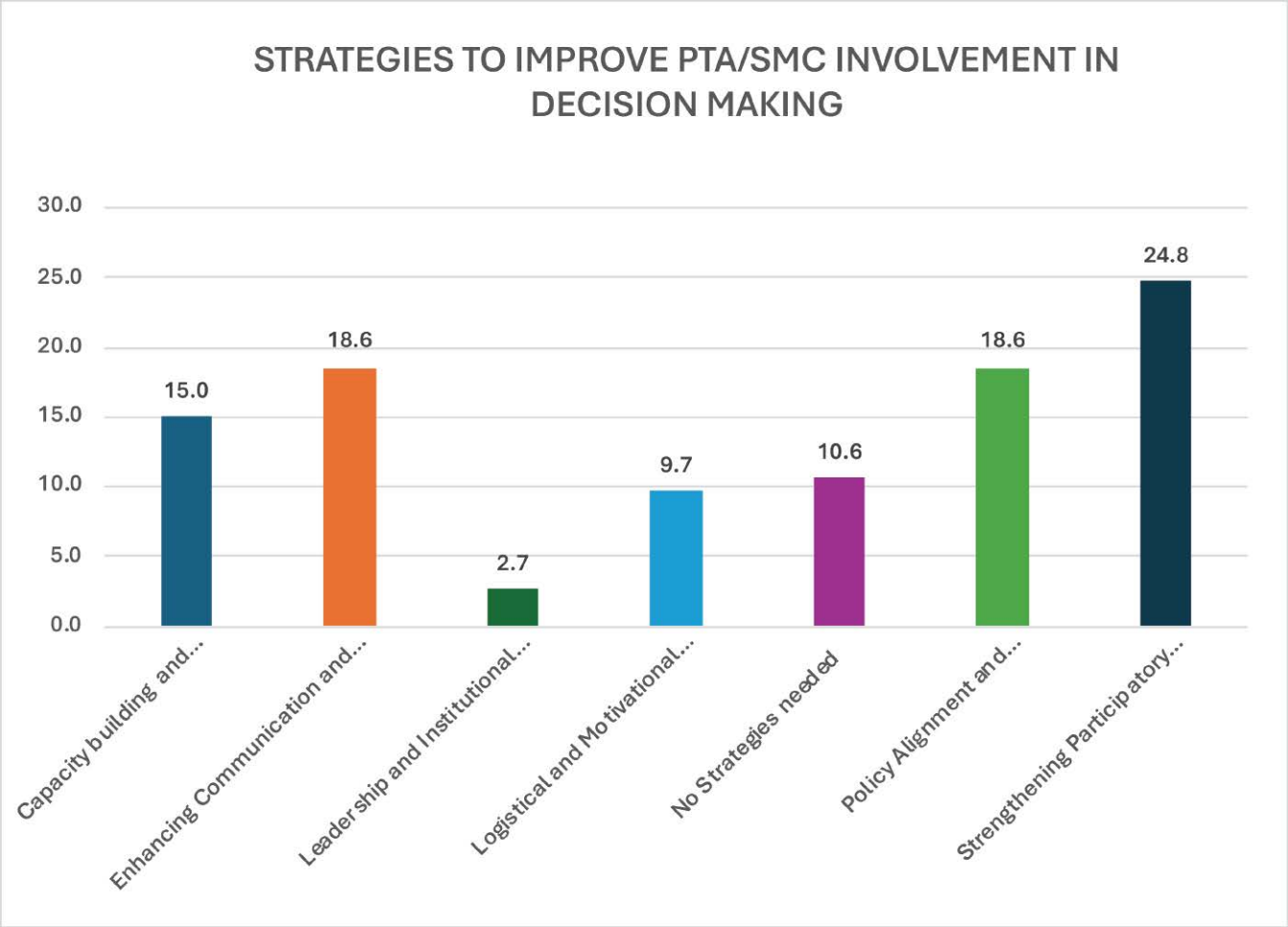
Figure 5: Challenges Preventing PTA/SMCs Active Involvement in Decision Making



Source: CTVET Survey data, 2025.

The primary barrier to PTA/SMC active participation in decision-making is low parental engagement, reported by 43.4% of respondents. Other notable challenges include systemic and structural constraints (14.2%), with a further 14.2% indicating no major challenges, suggesting that institutional barriers still affect participation in some schools. Communication and governance challenges (11.5%) and financial constraints (10.6%) were also identified as moderate obstacles, reflecting issues with coordination, transparency, and funding. Capacity and leadership gaps (5.3%) were less frequently reported, while resource mobilisation (0.9%) was considered the least significant challenge. The results suggest that engagement-related factors are a greater hindrance to PTA/SMC participation in decision-making than financial, leadership, or resource limitations.

Figure 6: Strategies to Improve PTA/SMC Involvement in Decision Making



Source: CTVET Survey data, 2025.

The preferred strategy for improving PTA/SMC involvement in governance is strengthening participatory governance structures, which was identified by the highest proportion of respondents (24.8%). This suggests that creating more inclusive and well-defined governance systems is considered essential for enhancing stakeholder participation. Other key strategies include enhancing communication and stakeholder engagement (18.6%) and promoting policy alignment and institutional autonomy (18.6%), highlighting the need for better information flow and supportive institutional frameworks. Capacity building and sensitization (15.0%) was also seen as an important approach, indicating the need to equip PTA/SMC members with relevant knowledge and skills. Additionally, logistical and motivational support mechanisms (9.7%) were noted as helpful in facilitating participation, while a small proportion of respondents (10.6%) indicated that no specific strategies were needed. Leadership and institutional culture (2.7%) were considered the least significant strategy. The findings emphasize strengthening governance systems, improving communication, and enhancing institutional support as the most effective ways to increase PTA/SMC involvement.

CHAPTER 3

ACCESS & INCLUSION IN TVET

3.0. INTRODUCTION

Access and inclusion constitute fundamental pillars of an effective, equitable, and future-oriented Technical and Vocational Education and Training (TVET) system. In Ghana, expanding access to TVET has increasingly been complemented by efforts that ensure that diverse learner groups, particularly persons with disabilities, disadvantaged youth, and underrepresented populations, are able not only to enroll but also to participate meaningfully and successfully complete their training.

This chapter examines access and inclusion within TVET institutions using data collected from the field. The analysis adopts a multidimensional perspective, covering institutional readiness, learner participation, facilitator practices, support systems, and structural barriers. It reflects key dimensions of inclusive TVET systems as recognized in international frameworks, including equitable participation, accessibility of infrastructure, responsiveness of pedagogy, and availability of support mechanisms.

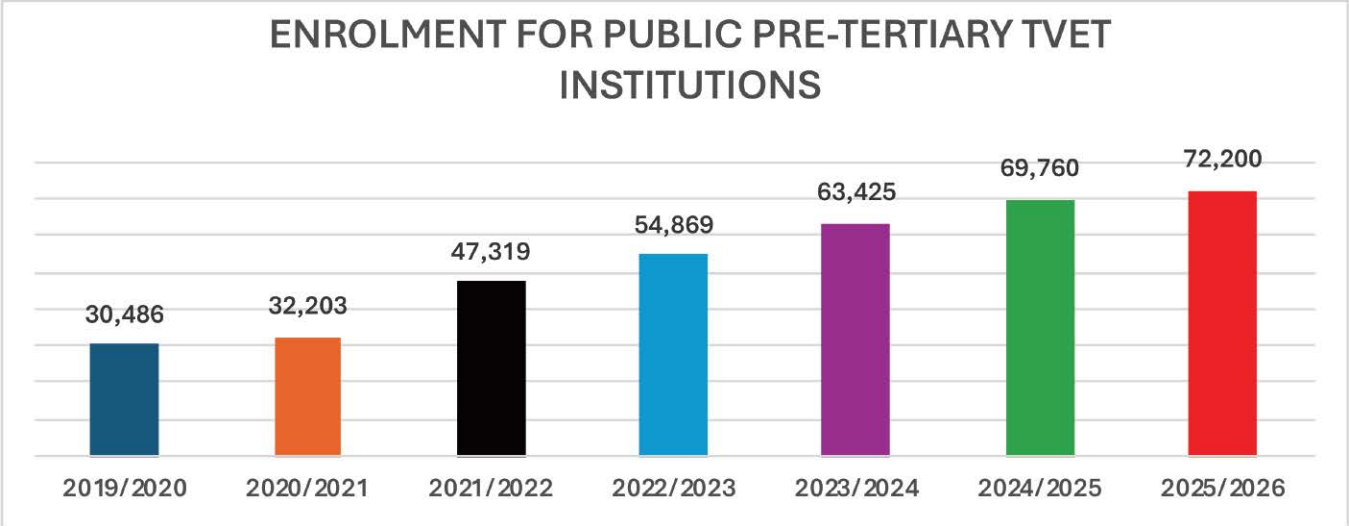
The findings indicate that while Ghana's TVET system has made measurable progress in recognizing and accommodating learner diversity, inclusion remains unevenly implemented. Institutional capacity, infrastructure limitations, funding constraints, and gaps in professional competencies continue to shape the extent to which access translates into equitable learning outcomes.

3.1. EXPANDING ACCESS AND PARTICIPATION IN TVET

3.1.1. Enrollment

Access and participation remain central pillars in Ghana's Technical and Vocational Education and Training (TVET) transformation agenda. Increasing enrolment has become a key indicator of progress towards a more inclusive, demand-driven, and industry-aligned skills development system as the Government, the Commission for Technical and Vocational Education and Training (CTVET), and the TVET Service intensify efforts to reposition TVET as a first-choice pathway to success. This section presents enrolment figures for learners under the TVET service, highlighting growth patterns and their implications for policy and planning over recent academic years. Figure 7 shows the enrolment for public pre-tertiary TVET institutions from 2019 to 2025.

Figure 7: Enrolment for public pre-tertiary TVET institutions (2019 to 2025)



Source: TVET Service data, 2025.

The data depicted in Figure 7 indicates a consistent and significant upward trajectory in student enrolment across the TVET sector over the period. Enrolment increased from 30,486 students in the 2019/2020 academic year to 32,203 in 2020/2021, reflecting a modest growth as foundational reforms in the sector began to take shape.

A notable surge is observed from the 2021/2022 academic year, where enrolment rose sharply to 47,319 students. This increase can be attributed to intensified policy interventions, including the scaling up of the Free TVET programme, increased public sensitization on TVET opportunities through such activities such as the MyTVET Campaign and the school and community sensitizations, and expanded access through both formal and non-formal training pathways.

The upward trend continued steadily, with enrolment reaching 54,869 in 2022/2023 and further increasing to 63,425 in 2023/2024. This sustained growth reflects improved confidence in the TVET system, strengthened institutional capacity, and

enhanced alignment of training programmes with labour market needs through mechanisms such as Workplace Experience Learning (WEL) and Sector Skills Bodies (SSBs).

In the 2024/2025 academic year, enrolment rose to 69,760 students, and it reached 72,200 in 2025/2026. While the rate of increase moderates slightly in the latter years, the overall trend remains positive, indicating consolidation of gains made in earlier reform phases.

Overall, student enrolment more than doubled over the seven-year period, representing a growth of approximately 137%. This expansion underscores the growing attractiveness of TVET as a viable and competitive education pathway, as well as the effectiveness of ongoing sector reforms.

The steady increase in enrolment presents both opportunities and responsibilities for the sector. On one hand, it signals progress toward the government's target of increasing TVET participation from approximately 11% to 20% in the short to medium term. On the other hand, it places a premium on the need to scale up infrastructure, expand training capacity, and ensure quality assurance across institutions.

It also reinforces the urgency of establishing sustainable financing mechanisms, including the proposed TVET Fund, to support the growing demand for skills training. Furthermore, the enrolment trends highlight the importance of strengthening data systems, particularly the development of a comprehensive TVET Management Information System (TVETMIS), to support real-time tracking, planning, and evidence-based decision-making.

The enrolment growth trajectory reflects a sector undergoing transformation. Sustaining this momentum will require continued investment, strong stakeholder collaboration, and a relentless focus on quality, relevance, and inclusiveness.

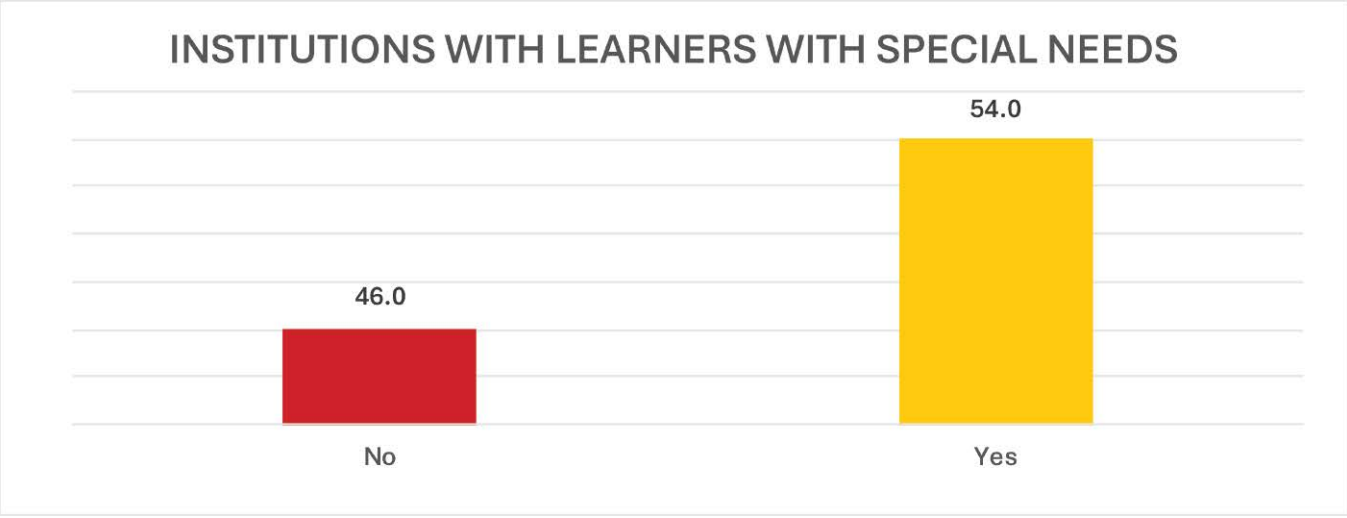
3.2. INCLUSION

This sub-chapter focuses on inclusion within the TVET ecosystem, recognizing that equitable access to skills development is essential for sustainable national development. It examines efforts to increase participation among underrepresented groups, including women, persons with disabilities, and vulnerable youth, while addressing systemic barriers that limit entry and progression within TVET pathways. Through targeted policies, inclusive programme design, and strategic partnerships, Ghana continues to advance a TVET system that is not only responsive to industry but also inclusive, leaving no one behind in the pursuit of skills for employment and entrepreneurship. Out of the 203 institutional respondents, the charts below present the distribution of TVET institutions with learners with special needs, highlighting the extent of inclusivity within the system.

3.2.1. Learners with special needs

Regarding how well institutions support learners with special needs, the chart below presents the distribution of institutional self-assessments across four performance categories. It provides an overview of how institutions perceive the effectiveness of their inclusive practices within the TVET system as of the end of 2025.

Figure 8: Institutions with Learners with Special Needs

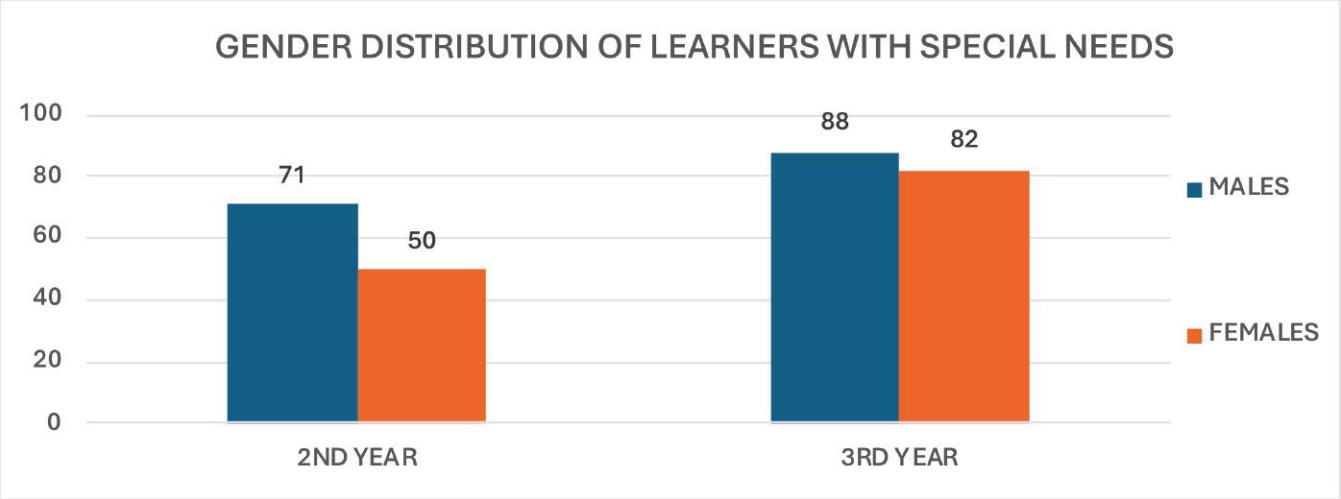


Source: CTVET Survey data, 2025.

The analysis indicates that most TVET institutions (54.0%) report the presence of learners with special needs, while 46.0% do not. This suggests that inclusive education is already a practical reality within a significant proportion of TVET institutions. However, the near-equal distribution also highlights that inclusion is not yet universal across the system, pointing to uneven access for learners with disabilities and related needs.

Figure 9 illustrates the distribution of learners with special needs by gender across different levels of study.

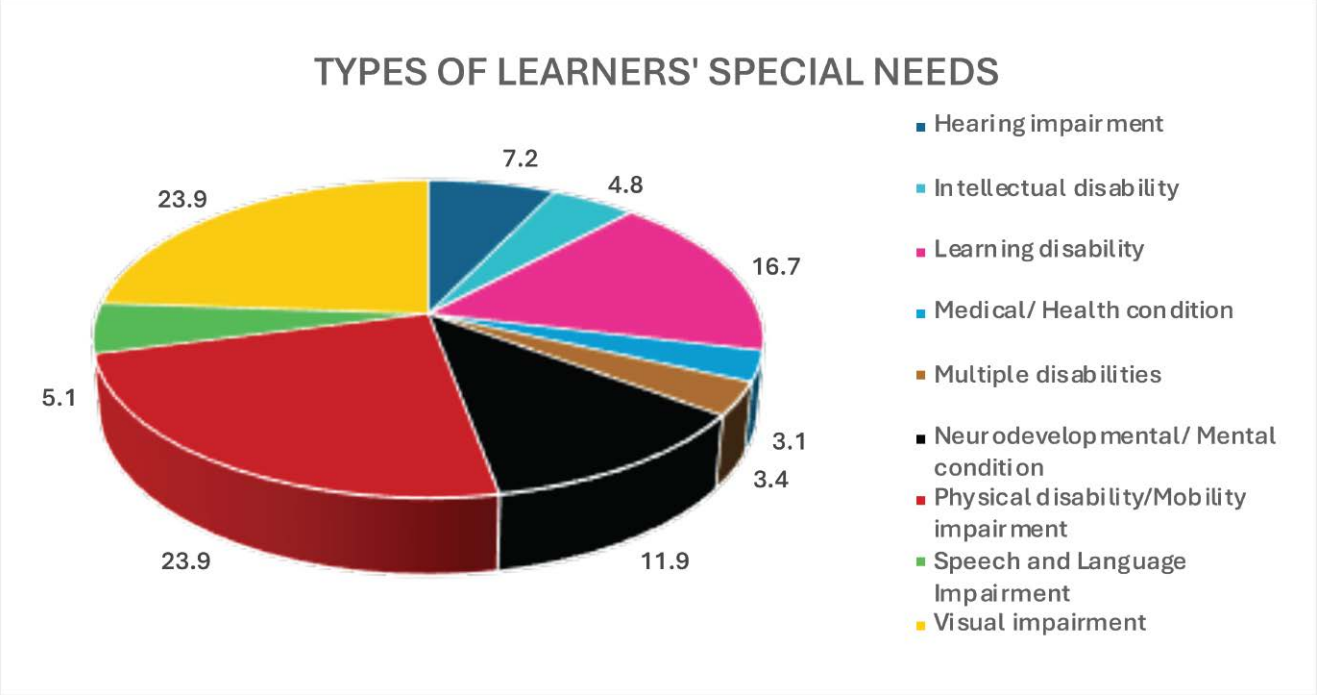
Figure 9: Gender Distribution of Learners with Special Needs



Source: TVET Service data (2025)

The data indicate a higher enrolment of male learners with special needs compared to females across both year groups, with 159 males (71 in 2nd year and 88 in 3rd year) versus 132 females (50 in 2nd year and 82 in 3rd year). Notably, the number of learners increased from the 2nd to the 3rd year for both genders, suggesting improved retention or progression among learners with special needs within the TVET system. However, the persistent gender gap highlights the need for targeted inclusion strategies to improve female participation, particularly through gender-responsive interventions under CBT and equitable access policies.

Figure 10: The pie chart shows different types of special needs among learners within TVET institutions

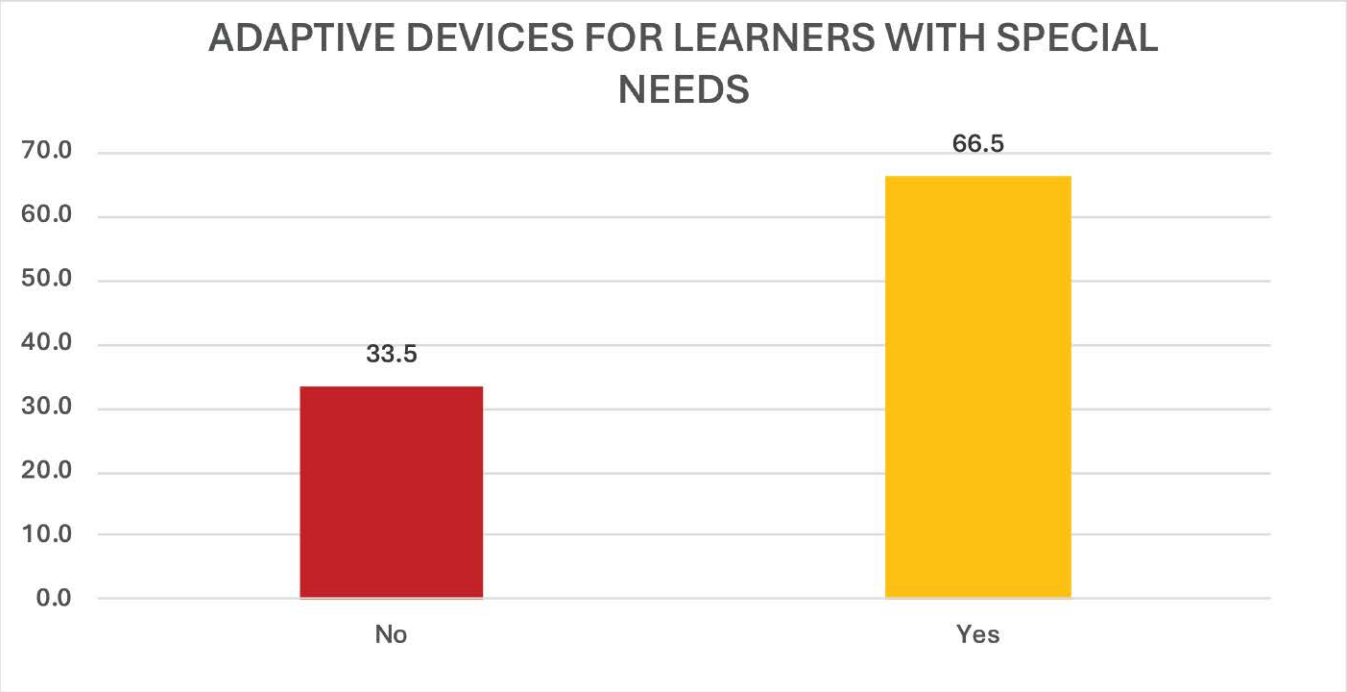


Source: TVET Service data (2025)

The distribution shows that physical disability/mobility impairment and visual impairment constitute the highest proportions (each approximately 23.9%), followed by learning disabilities (16.7%) and neurodevelopmental/mental conditions (11.9%). Other categories, such as hearing impairment, speech and language impairment, and medical conditions, remain comparatively low. This pattern suggests that infrastructure accessibility (e.g., workshops, tools, and training environments) and adaptive learning materials are critical priorities for the TVET system. It further underscores the importance of strengthening inclusive CBT delivery models and assistive technologies to support diverse learner needs.

The chart below presents the findings to the question as to whether institutions across the country have adaptive devices for learners with special needs. The data indicate that the majority of institutions are equipped with adaptive devices, though a notable proportion still lacks such essential support tools.

Figure 11: Adaptive Devices for Learners with Special Needs



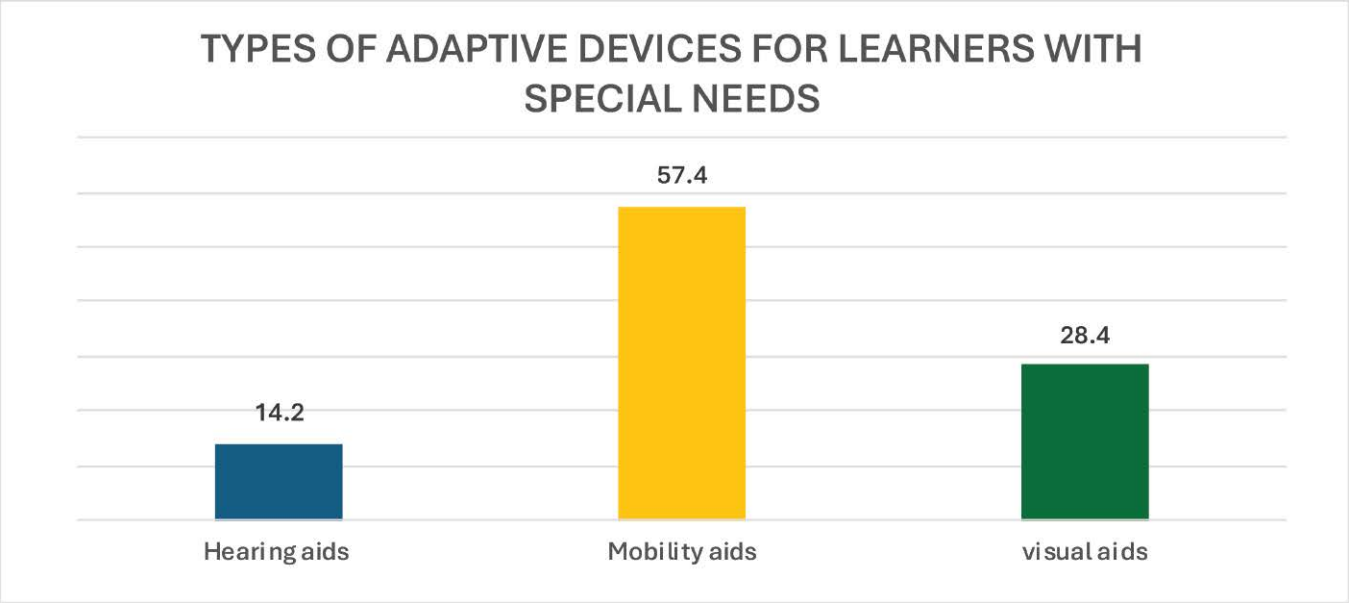
Source: CTVET Survey data, 2025.

The data indicate that 66.5% of institutions reported having adaptive devices, while 33.5% indicated that they do not have such provisions in place. This suggests that although many institutions are making efforts towards inclusivity, over one-third of them still lack the necessary tools to adequately support learners with special needs.

This disparity underscores the need for targeted interventions to ensure equitable access to training resources across all TVET institutions. The absence of adaptive devices in a considerable proportion of institutions may limit participation, retention, and performance of learners with special needs, thereby affecting the broader goal of inclusive and accessible TVET delivery. Strengthening investment in assistive technologies, alongside policy enforcement and institutional support mechanisms, will be critical in bridging this gap and advancing inclusive skills development in Ghana.

The analysis that follows presents the types of adaptive devices provided for learners with special needs and indicates that they vary significantly, with mobility aids emerging as the most commonly available.

Figure 12: Types of Adaptive Devices for Learners with Special Needs



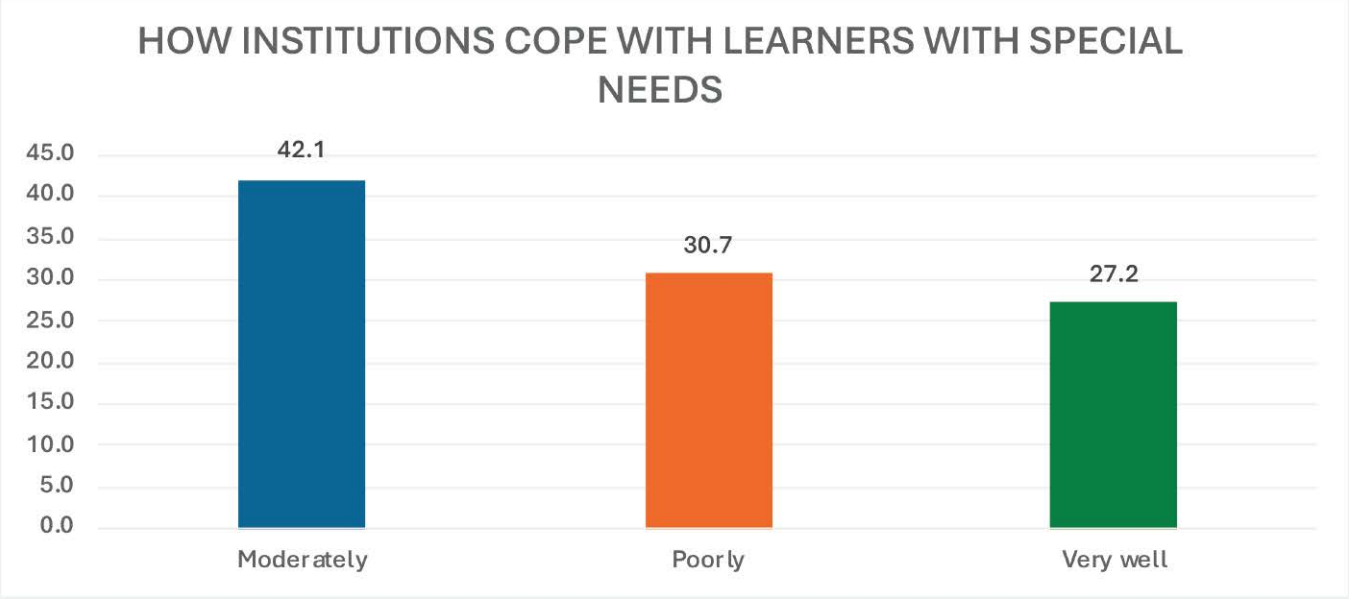
Source: CTVET Survey data, 2025.

The data shows that 57.4% of institutions reported providing mobility aids, compared to 28.4% offering visual aids and only 14.2% providing hearing aids. This distribution suggests that institutional efforts have largely prioritized support for learners with physical disabilities, while comparatively less attention has been given to learners with visual and hearing impairments.

The disparity in the availability of different types of adaptive devices highlights an imbalance in inclusive provision within the TVET system. The relatively low provision of hearing and visual aids may limit access and effective participation for learners with sensory impairments, thereby constraining the system's inclusive objectives.

Institutions were assessed on how well they support learners with special needs, with responses categorized into three levels of performance.

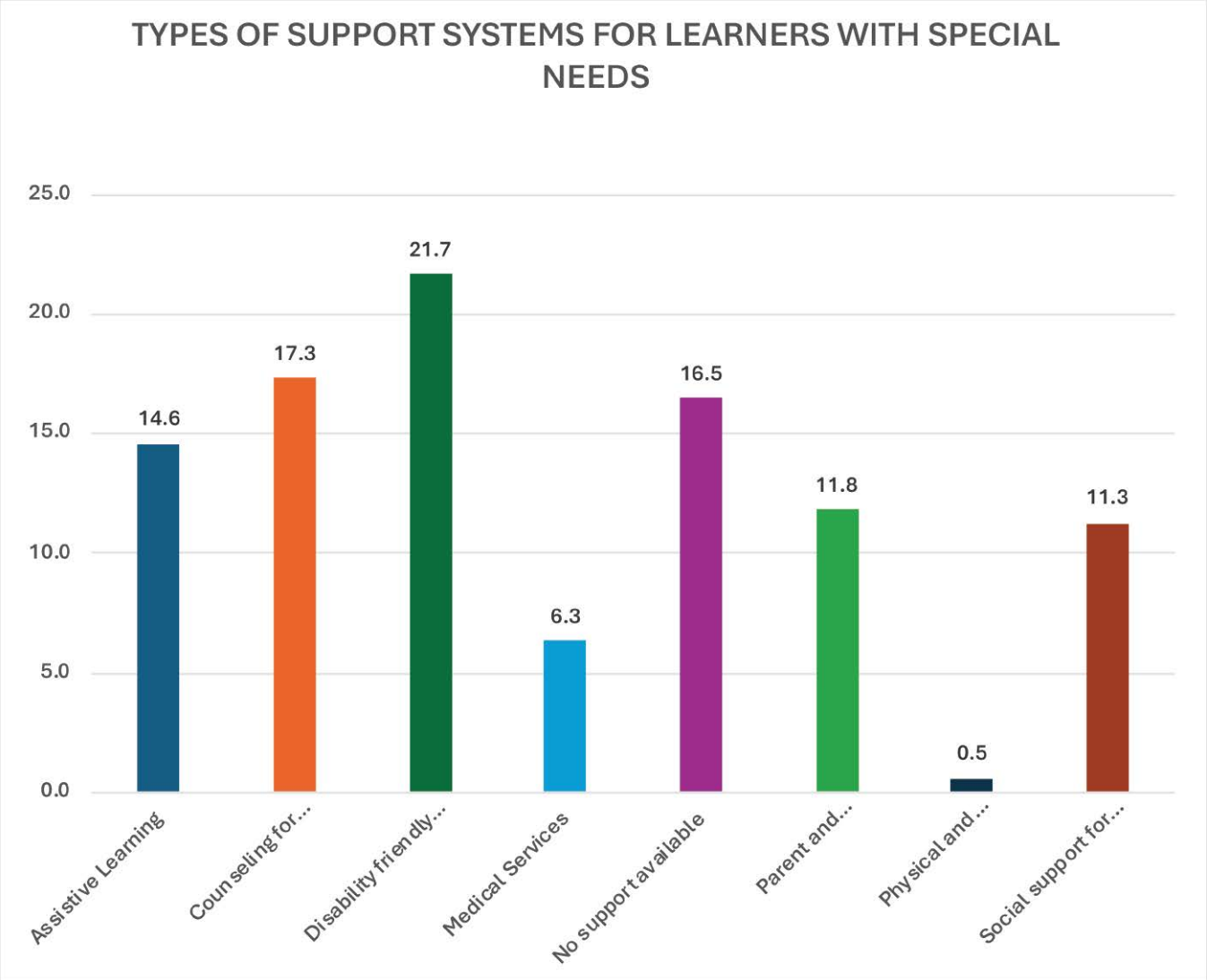
Figure 13: How Institutions Cope with Learners with Special Needs



Source: CTVET Survey data, 2025.

The results show that 42.1% of institutions face significant challenges and could need more support or resources, 30.7% struggle to meet the needs of learners with special needs, whilst 27.2% feel fully equipped and supported to meet the needs of learners. This distribution indicates that while a significant proportion of institutions perceive themselves as providing an average level of support, a notable share still considers their efforts inadequate, with relatively fewer institutions reporting high levels of effectiveness.

Figure 14: Types of Support Systems for Learners with Special Needs

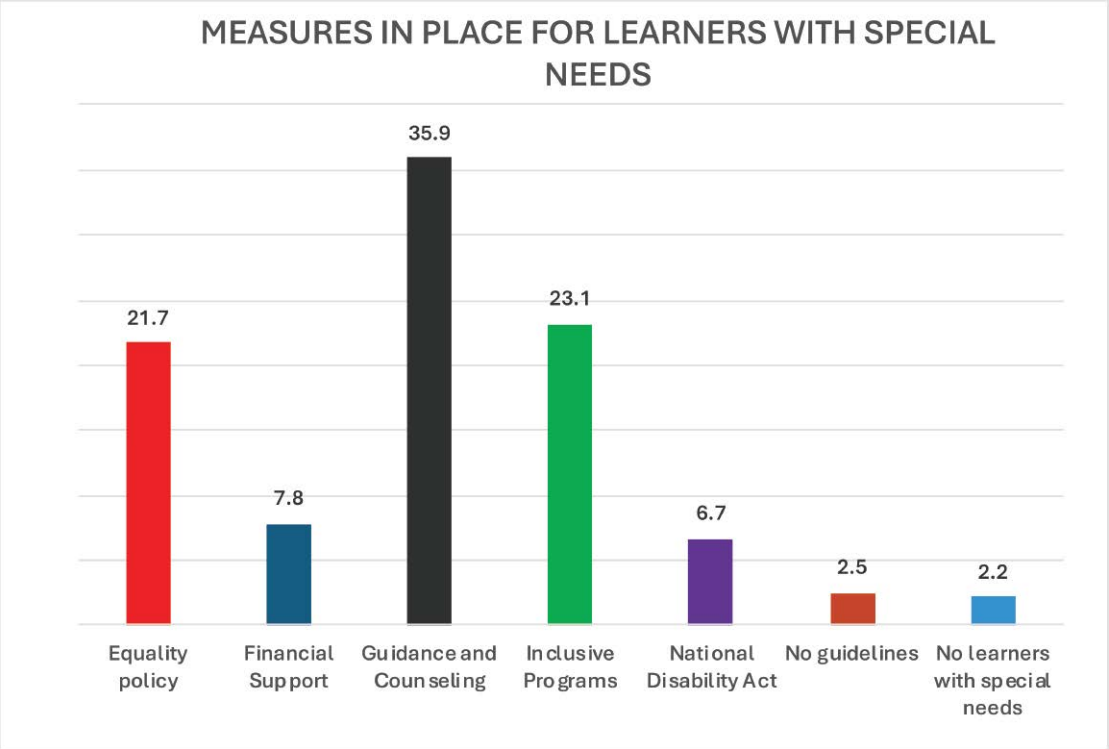


Source: CTVET Survey data, 2025.

The data indicate that disability-friendly infrastructure is the most reported support, accounting for 21.7% of responses, followed by counselling for children (17.3%), no support available (16.5%), and assistive learning services (14.6%). Other forms of support include parent and facilitator involvement (11.8%) and social support for learners (11.3%), while medical services account for 6.3%. Notably, physical and occupational therapy is the least available support service, reported by only 0.5% of institutions. Overall, while some institutions have implemented key support structures such as infrastructure adjustments and counselling services, the relatively high proportion reporting no support, alongside limited access to specialized services like therapy and medical support, reflects uneven availability of comprehensive support systems across the TVET landscape.

In the field data survey conducted by CTVET, institutions were assessed on the range of support services available for learners with special needs. The chart below presents the distribution of different types of support mechanisms reported across institutions, providing an overview of the breadth of inclusive services within the TVET system.

Figure 15: Measures in Place for Learners with Special Needs

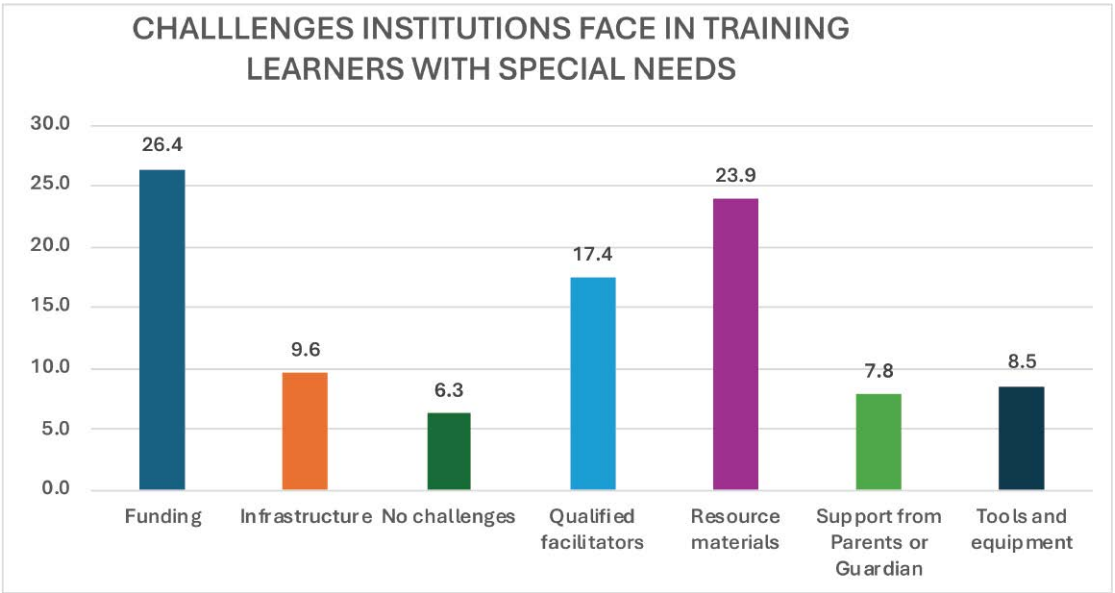


Source: CTVET Survey data, 2025.

The results show that guidance and counselling policies are the most prevalent, reported by 35.9% of institutions, followed by inclusive programmes (23.1%) and equality policies (21.7%). In contrast, financial support policies account for 7.8%, while the National Disability Act is referenced by 6.7% of institutions. A smaller proportion reported having no formal guidelines (2.5%) or no learners with special needs (2.2%). Overall, the data suggest that while many institutions rely on programme-based and counselling-oriented approaches to inclusion, fewer have formalized financial or legislative frameworks explicitly guiding their interventions.

An overview of the challenges faced by institutions in training learners with special needs, based on the CTVET survey, is presented in the next chart. The data highlights the key constraints affecting the delivery of inclusive TVET across institutions.

Figure 16: Challenges Institutions Face in Training Learners with Special Needs



Source: CTVET Survey data, 2025.

The findings indicate that funding is the most significant challenge, reported by 26.4% of institutions, followed closely by resource materials (23.9%) and the availability of qualified facilitators (17.4%). Challenges related to infrastructure account for 9.6%, while tools and equipment (8.5%) and support from parents or guardians (7.8%) also present notable constraints. The category with 6.3% represents institutions that indicated no challenges. Overall, the data reflects a combination of financial, human resource, and material constraints, alongside less quantifiable institutional and systemic challenges, affecting the effective delivery of training for learners with special needs.

Drawing from the CTVET survey results as of the end of 2025, institutions provided assessments of the level of accessibility of their facilities for learners with special needs. The chart below outlines the different levels of accessibility reported across the TVET system.

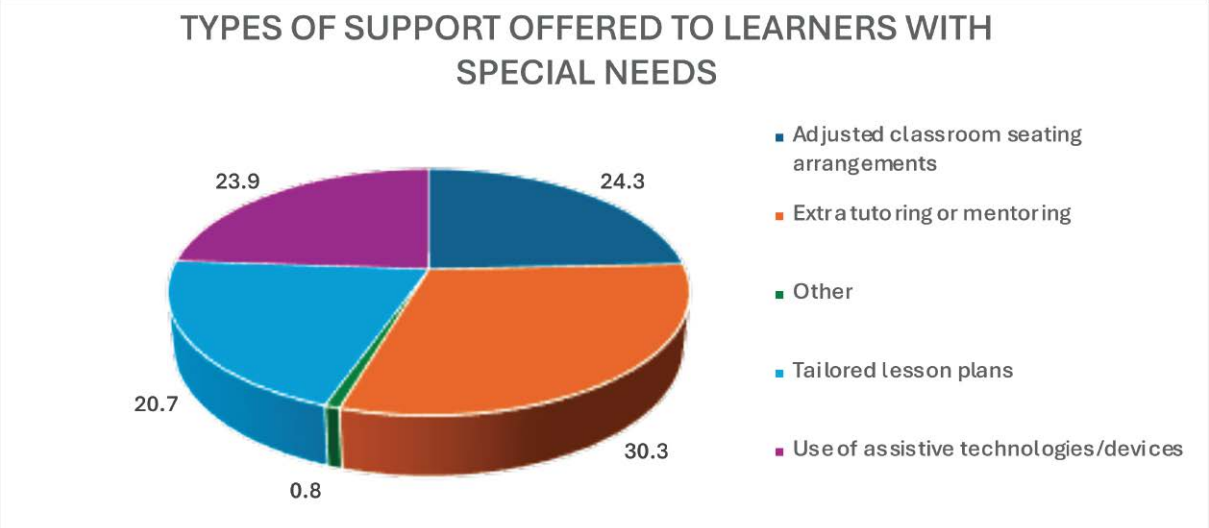
Figure 17: Accessibility for Learners with Special Needs

Source: CTVET Survey data, 2025.

The data shows that 50.2% of institutions indicated that their facilities are easily accessible, meaning most learners with special needs can use them without difficulty at any time. A further 19.2% reported that their facilities are somewhat accessible, suggesting that while access is possible, there are certain limitations or restrictions. Meanwhile, 16.3% of institutions indicated limited access, where facilities are only usable by a few groups of learners with special needs or kinds of special needs, and 14.3% reported that their facilities are not accessible at all. Overall, the findings reflect that although about half of the institutions have made facilities broadly accessible, a considerable proportion still experience varying degrees of access constraints, affecting the inclusivity of the learning environment.

In respect of the specific support measures provided to learners with special needs, the chart below presents the range of interventions adopted by institutions according to the facilitators who were interviewed.

Figure 18: Types of Support Offered to Learners with Special Needs



Source: CTVET Survey data, 2025.

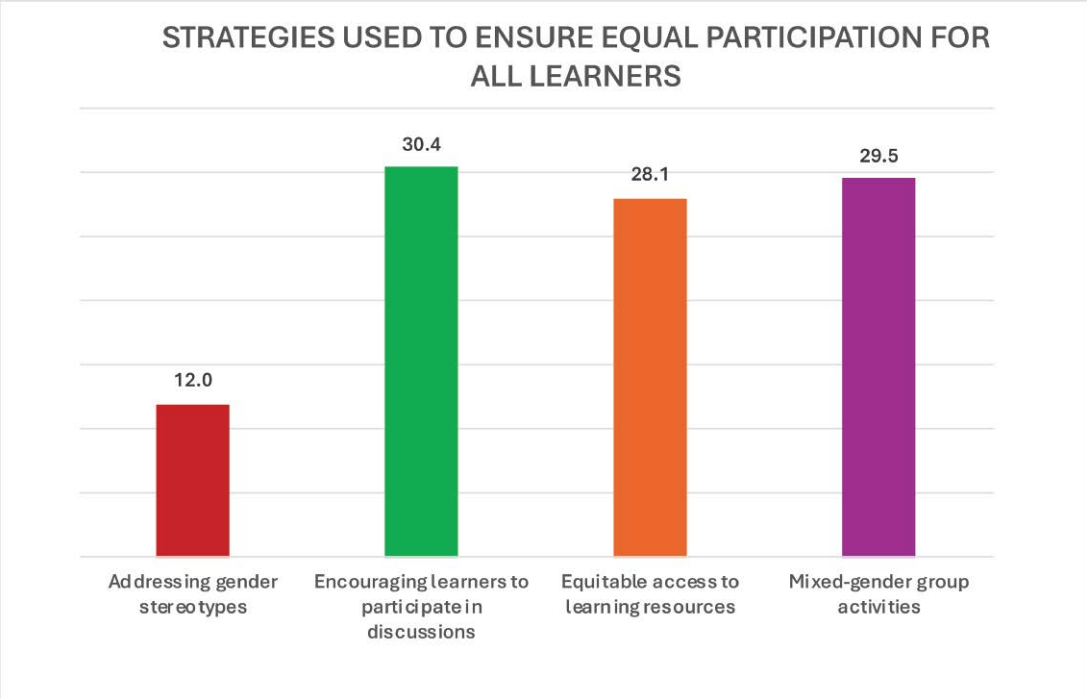
Facilitators primarily support learners through extra tutoring or mentoring (approximately 30–35%), adjusted seating arrangements (24–27%), and the use of assistive technologies (17–24%). Tailored lesson plans account for about 20%. These findings indicate that facilitators are making practical efforts to support learners, although these strategies remain largely adaptive rather than systematically embedded in inclusive pedagogy.

Similar trends are observed, with extra tutoring and mentoring remaining the dominant strategy, followed by classroom adjustments and tailored lesson delivery. The limited use of peer learning and differentiated teaching methods suggests that inclusive practices are still evolving and not yet fully integrated into teaching methodologies.

The category "Other", representing 0.8%, represents the following: not applicable, no special needs, counselling, group presentation, and peer-to-peer groupings. Although the proportion is relatively low, it highlights emerging practices and the need for standardization and scaling of effective inclusive strategies across the TVET system.

As part of the CTVET survey conducted at the end of 2025, institutions were asked to identify measures implemented to promote inclusivity and participation among learners. The chart below presents the various approaches adopted by institutions to support equitable engagement within the learning environment.

Figure 19: Strategies Used to Ensure Equal Participation for all Learners



Source: CTVET Survey data, 2025.

The findings show that encouraging learners to participate in discussions is the most common approach, reported by 30.4% of facilitators, followed closely by mixed-gender group activities (29.5%) and equitable access to learning resources (28.1%). In contrast, addressing gender stereotypes is the least reported measure, accounting for 12.0%. Overall, the data suggest that facilitators are more focused on participatory and collaborative learning strategies to promote inclusion, while comparatively fewer are actively addressing underlying social and cultural barriers such as gender stereotypes.

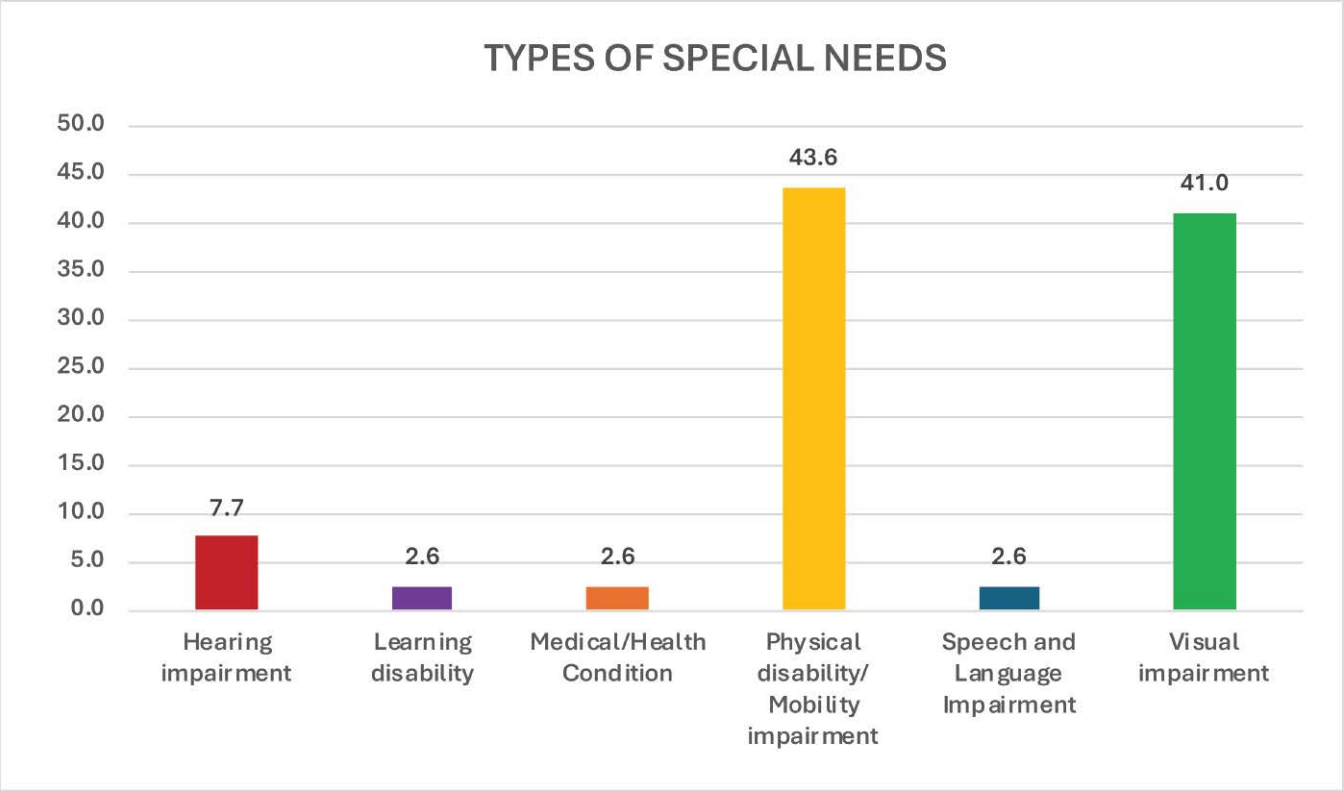
This subsection captures cross-cutting inclusion indicators derived from questions administered uniformly to all respondent groups within the TVET ecosystem. It provides a consolidated view of institutional practices, policies, and support mechanisms that influence equitable access and participation, irrespective of learner category or stakeholder type. By examining common themes such as availability of inclusive infrastructure, support services, gender responsiveness, and institutional readiness, this subsection enables a holistic assessment of the inclusiveness of the TVET system. The findings, therefore, serve as a baseline for identifying systemic strengths, gaps, and priority areas for policy and programmatic interventions aimed at advancing inclusive TVET delivery across the country.

In examining facilitator preferences within the TVET system, the CTVET survey captured responses on the facilitators' willingness to switch to a different subject if given the opportunity. The chart below presents the distribution of responses, offering insight into facilitator satisfaction and alignment with their current areas of instruction.

3.2.1. Facilitators with Special Needs

Ensuring inclusive participation of people with disabilities is an essential component of a responsive and equitable Technical and Vocational Education and Training (TVET) system. Inclusive TVET not only promotes equal access to skills development but also strengthens the diversity and representativeness of the training environment by enabling both learners and facilitators with different abilities to participate meaningfully in education and the workforce. In Ghana's TVET system, increasing attention has been placed on improving accessibility, participation, and support mechanisms for persons with special needs within training institutions. Understanding the distribution of disabilities among facilitators and the extent to which institutions provide adequate support for learners with special needs is critical for assessing the inclusiveness of the system. The analysis that follows examines the types of disabilities represented among facilitators and explores institutional perceptions of how effectively TVET institutions support learners with special needs. This provides important insights into existing inclusion practices, potential gaps, and areas where further interventions may be required to strengthen inclusive TVET delivery.

Figure 20: Types of Special Needs



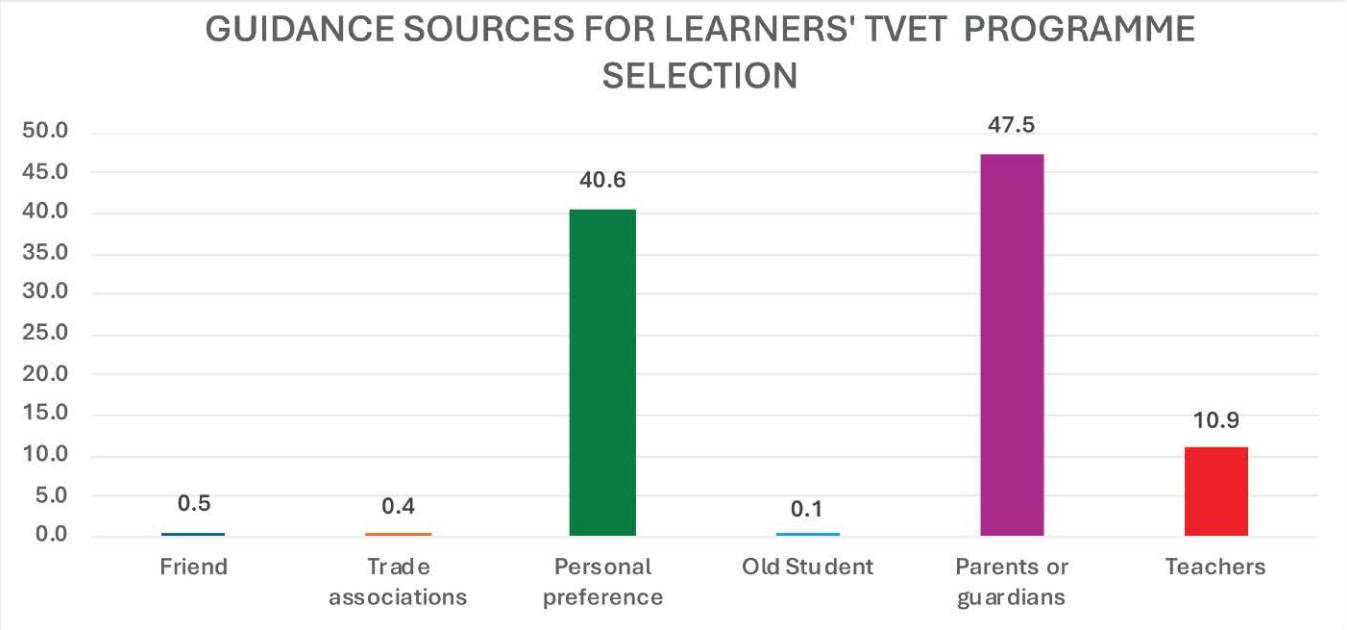
Source: TVET Service data, 2025.

Among facilitators, physical disability/mobility impairment (43.6%) and visual impairment (41.0%) dominate significantly, with all other categories representing minimal proportions (each below 8%). This concentration suggests that while inclusion is present among trainers, it is skewed towards specific disability types. The limited representation of facilitators with learning, hearing, or speech impairments may indicate systemic barriers to entry or progression within the TVET workforce. Strengthening inclusive recruitment, capacity building, and RPL pathways for facilitators with diverse needs will be essential to promote a more representative and inclusive training ecosystem.

The Learners subsection under Access and Inclusion examines the extent to which all categories of learners can enter, participate in, and successfully progress through the TVET system. It highlights learners' perspectives on school selection and learning opportunities.

Specifically, in exploring the factors that influence learners' choice of TVET programmes, the CTVET survey as of the end of 2025 examined the key actors who play a role in shaping these decisions. The chart below presents the distribution of responses on the most influential sources guiding programme selection.

Figure 21: Guidance Sources for Learners' TVET Programme Selection



Source: CTVET Survey data, 2025.

The results show that parents or guardians are the most significant influencers, accounting for 47.5% of responses, followed by self-influence (myself) at 40.6%, indicating a strong element of personal decision-making among learners. Teachers contribute 10.9% to programme selection, while other influences, such as friends (0.5%), garment trade associations (0.4%), and old students (0.1%) play a minimal role. Overall, the data highlights the dominant role of family and individual agency in shaping TVET choices, with comparatively limited influence from peer groups and industry-related actors.

3.1. EXPANDING ACCESS IN THE INFORMAL SECTOR

The Expanding Access in the Informal Sector subsection highlights the government's commitment to extending TVET opportunities beyond the formal education system to reach a broader segment of the population, particularly within the informal economy. Through targeted interventions such as the Ghana TVET Voucher Project (GTVP) and the Ghana Jobs and Skills Apprenticeship Programme (GJS-AP), significant strides have been made in improving access to skills training for artisans, apprentices, and vulnerable youth.

Building on these efforts, Government in 2025 introduced yet another initiative, the National Apprenticeship Programme (NAP), which represents a strategic step towards formalizing and strengthening apprenticeship systems, enhancing quality, and ensuring that informal sector learners acquire relevant, certified skills that improve employability and productivity.

3.1.1. Ghana Jobs and Skills - Apprenticeship Programme (GJS-AP)

The Ghana Jobs and Skills Apprenticeship Programme (GJS-AP) is a pivotal initiative under the Ghana Jobs and Skills Project (GJSP), focused on equipping the youth with practical, hands-on skills through structured apprenticeship training. This programme seeks to enhance employability, entrepreneurship, and economic productivity while addressing the skills gap in various sectors of Ghana's economy.

The Government of Ghana, with support from the International Development Association (IDA) of the World Bank, implemented the Ghana Jobs and Skills Apprenticeship Programme (GJS-AP) as a key component of its broader skills development agenda. The programme has successfully delivered apprenticeship training by combining workplace-based training under master-craft persons with structured classroom-based instruction provided by accredited public and private training institutions. This approach has been operationalized within a formalized, standardized, and quality-assured apprenticeship framework, aligned with national TVET reforms.

As part of the implementation, master craft persons were trained and integrated into the formal system, while apprenticeship training providers were registered and progressed towards accreditation in accordance with the National Technical and Vocational Education and Training Qualifications Framework (NTVETQF). The programme also strengthened the capacity of accrediting bodies to ensure effective quality assurance and regulatory oversight. Standardized curricula were developed and deployed, enhancing consistency and relevance of training delivery across participating institutions.

In addition, apprentices participated in a structured generic training component covering English, Mathematics, Integrated Science, Information and Communication Technology (ICT), Climate Change Mitigation and Adaptation, Health and Safety, Interpersonal Relations, and Entrepreneurship. Complementary literacy and numeracy support were provided through non-formal education where necessary, particularly during classroom-based training sessions. Both apprentices and master craft persons also received ICT training, further enhancing digital competencies and supporting the transition towards a modern, industry-relevant apprenticeship system.

As of the time of compiling this report, a total of 40,179 learners had been certified across multiple initiatives under the Ghana Jobs and Skills Apprenticeship Programme and the Ghana TVET Voucher Project.

The chart below presents the regional and trade area distribution of beneficiaries under the Ghana Jobs and Skills Apprenticeship Programme (GJS-AP) for the National Proficiency 1 level on the National TVET Qualifications Framework (NTVETQF).

Table 1: National proficiency 1

REGION	ASHANTI	GREATER ACCRA	NORTHERN	VOLTA	GRAND TOTAL
Automotive Repair	57			90	147
Construction / Welding	20			56	76
Consumer Electronics		199	258	302	759
Cosmetology / Hairdressing	742	355	565	388	2050
Garment / Dress Making	3349	1090	2387	750	7576
Total	**4168**	**1644**	**3210**	**1586**	**10,608**

The data shows that Garment/Dress Making recorded the highest enrolment across all regions, followed by Cosmetology/Hairdressing, indicating strong participation in traditionally dominant informal sector trades, while Consumer Electronics also reflects notable uptake, particularly in the Greater Accra, Northern, and Volta regions.

Overall, the Ashanti Region recorded the highest number of beneficiaries, followed by the Northern and Greater Accra regions, with a total of 10,608 trainees enrolled across all trades. This distribution highlights both the scale of access being created under the programme and the continued concentration of participation in specific trades, underscoring the need to further diversify skills training opportunities in emerging and high-growth sectors.

In analyzing enrolment patterns for National Certificate I programmes, the table below presents the regional distribution of learners across various trade areas within the TVET system as of the end of 2025. It provides a comprehensive overview of programme uptake by region and specialization.

Table 1: National proficiency 1

REGION	AUTOMOTIVE ENGINEERING	CATERING & HOSPITALITY MANAGEMENT	ELECTRICAL ENGINEERING TECHNOLOGY	FURNITURE TECHNOLOGY	GARMENT MAKING	HAIR TECHNOLOGY	PLUMBING AND GAS	WELDING & FABRICATION	GRAND TOTAL
Ahafo		96			172				**268**
Ashanti	243	469	420		1309	405	303	79	**3,228**
Bono					115	175			**290**
Bono East			76		666	169			**911**
Central	95	30	299		648	130	61	41	**1,302**
Eastern		75	20		58	33		40	**226**
Greater Accra	85	170	15		419	276		158	**1,123**
Northern					293	293			**586**
Oti		80	19		187	60			**346**
Upper East	102	311	264		471			54	**1,207**
Upper West			98	39	234				**371**
Volta	20		40		94	57			**174**
Western	66	57			150	152		63	**488**
GRAND TOTAL	**611**	**1288**	**1249**	**39**	**4816**	**1713**	**364**	**440**	**10,520**

The data shows that Garment Making is the most subscribed programme nationwide, with a total of 4,816 learners, followed by Hair Technology (1,713), Catering & Hospitality Management (1,288), and Electrical Engineering Technology (1,249). Other programmes such as Automotive Engineering (611), Welding & Fabrication (440), and Plumbing and Gas (364) record comparatively lower enrolment, while Furniture Technology has the least enrolment with only 39 learners. Regionally, Ashanti Region records the highest overall enrolment with 3,228 learners, followed by Central Region (1,302), Upper East Region (1,207), and Greater Accra Region (1,123). In contrast, regions such as Eastern (226), Volta (174), and Ahafo (268) record relatively lower totals. Overall, the table highlights strong concentration in selected trades, particularly garment-related programmes, alongside notable regional disparities in participation across the country.

3.1.2. Ghana TVET Voucher Program (GTVP)

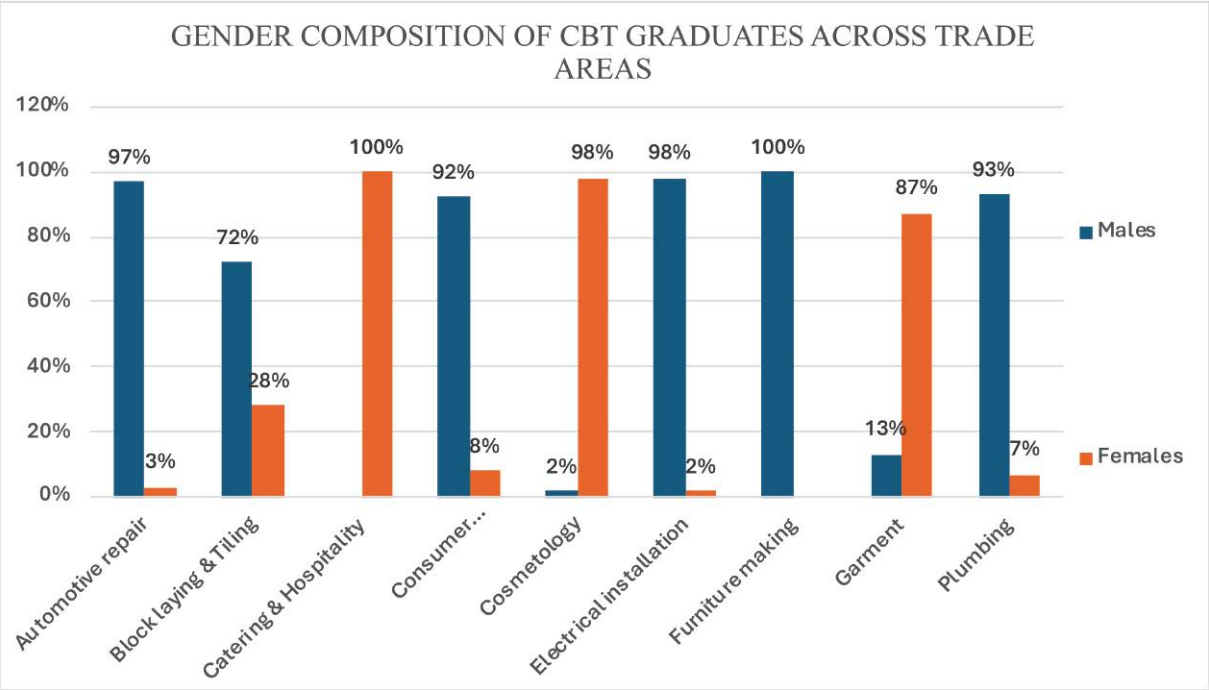
The Ghana TVET Voucher Project (GTVP) represents a flagship intervention in the transformation and formalisation of skills development within Ghana's informal sector. Implemented through a partnership between the Government of Ghana and the German Government, with funding support from KfW and co-financing from the German Federal Ministry for Economic Cooperation and Development (BMZ), and spearheaded by the Commission for Technical and Vocational Education and Training (CTVET), the project has introduced a structured, demand-driven, and quality-assured approach to apprenticeship training. The initiative specifically targets master craft persons, their apprentices, and informal-sector workers across key trades such as automotive repair, welding, tailoring, plumbing, and construction, integrating workplace-based learning with classroom instruction delivered through accredited training providers under a Competency-Based Training (CBT) model.

Through the provision of training vouchers, beneficiaries accessed certified training programmes aligned with the National TVET Qualifications Framework (NTVETQF), thereby formalising skills traditionally acquired through informal apprenticeship systems. Across Phases I to IV, the project successfully trained 37,027 apprentices, while an additional 5,500 individuals were certified under the Recognition of Prior Learning (RPL) framework. To date, 24,077 beneficiaries have received nationally recognised certificates issued under the NTVETQF, enhancing their employability, mobility, and productivity within the labour market.

Beyond training delivery, GTVP has contributed significantly to strengthening the TVET ecosystem through the standardisation of curricula, improved accreditation processes, and enhanced quality assurance mechanisms. The project has also informed broader sector reforms, including the development and submission of a proposal and feasibility study for the establishment of a dedicated TVET Fund, aimed at ensuring sustainable financing for skills development in Ghana. Collectively, these interventions underscore GTVP's role in advancing an inclusive, industry-relevant, and formalised apprenticeship system aligned with national development priorities.

An analysis of gender distribution among CBT graduates under the Ghana TVET Voucher Project (GTVP) across different cohorts and trade areas is presented in the chart below. The next figure provides a comparative view of male and female participation, highlighting patterns of gender representation within specific trades over time.

Figure 22: Gender composition of CBT graduates across cohorts and trade areas



Source: CTVET Survey data, 2025.

The data reveal a strong dominance of male participation across most cohorts and trade areas, with proportions reaching as high as 97%, 92%, 98%, 100%, and 93% in several instances. In contrast, female participation remains relatively low in these areas, often accounting for less than 10% of graduates. However, there are notable exceptions where female representation is significantly higher, including one cohort with 100% female participation and another with approximately 87% female and 13% male participation, indicating that certain trade areas attract predominantly female learners. Additionally, one cohort shows a more balanced distribution with about 72% male and 28% female participation. Overall, the chart highlights persistent gender imbalances in CBT trades, with participation largely skewed towards males in most areas, while a few trades demonstrate strong female dominance or improved gender balance.

3.1.3. Outcomes and impact of Competency-Based Training (CBT) under the Ghana TVET Voucher Project (GTVP)

As part of efforts to assess the outcomes and impact of Competency-Based Training (CBT) under the Ghana TVET Voucher Project (GTVP), a fifth-round tracer study was conducted to analyse the employment and economic conditions of beneficiaries trained through CTVET-accredited institutions. The study focused on graduates comprising Master Craft Persons (MCPs), their apprentices, and workers within the informal sector, with particular emphasis on micro and small enterprises (MSEs). The assessment was anchored on four key project indicators, namely improvements in working conditions and income, business competitiveness, satisfaction with acquired competencies, and employment outcomes of trained apprentices.

The tracer study covered two cohorts of beneficiaries: those trained under Phases I and II (2017–2021) and those trained under Phase IV (2022 onwards). A total of 1,614 CBT graduates were surveyed from across all sixteen regions of Ghana using a stratified sampling approach to ensure representation by cohort, region, and beneficiary type.

Findings from the study indicate that participation in CBT under the GTVP has resulted in significant improvements in the livelihoods of beneficiaries. More than 85 per cent of graduates across both cohorts reported enhanced working conditions and increased income levels, exceeding the programme's target of 70 per cent. These improvements were particularly pronounced among MCPs, who also reported expanded job responsibilities, increased working hours, and improved adherence to occupational health and safety standards, including the use of personal protective equipment (PPE).

In relation to enterprise performance, the majority of MCPs confirmed that CBT training contributed positively to the competitiveness of their businesses. Specifically, 76.9 per cent of MCPs trained under Phases I and II reported improved business competitiveness, while 69.2 per cent of those trained under Phase IV indicated similar gains. Although there are slight variations between cohorts, these findings demonstrate sustained progress and an upward trend compared to previous survey rounds, reinforcing the relevance of CBT in strengthening informal sector enterprises.

The study further reveals high levels of satisfaction among MCPs regarding the competencies of trained apprentices and workers. Satisfaction rates exceeded the programme target, with 79 per cent of MCPs under Phases I and II and 82 per cent under Phase IV affirming improvements in technical and practical skills. This reflects a continuous enhancement in training quality over time, particularly in key trade areas such as automotive repair and construction-related fields, including welding.
With respect to employment outcomes, the tracer study shows strong labour market integration for CBT graduates. Over 91 per cent of apprentices from the earlier cohorts (Phases I and II) secured employment or became self-employed within six months of completing training, significantly surpassing the programme target. However, Phase IV recorded a lower employment rate of 35 per cent within the same period. This variation is attributed to the recency of training completion among Phase IV graduates, many of whom require additional time to transition into employment or establish their own businesses. Notably, many self-employed graduates have progressed to become job creators, typically engaging up to three apprentices in their enterprises. Nonetheless, access to start-up capital, tools, and adequate workspace remains a key constraint to business expansion and sustainability.

Overall, the findings of the tracer study demonstrate that the CBT approach under the GTVP has contributed significantly to improving employability, income levels, workplace safety, and enterprise development among beneficiaries. The programme has also shown strong potential in promoting entrepreneurship, supporting inclusive participation, and enhancing outcomes for women and informal sector workers. These results underscore the effectiveness of integrating structured, competency-based training within Ghana's TVET system, while also highlighting the need for complementary interventions to address financing and market access constraints in order to sustain and scale impact. ***(Tracer Study No. 5 for the three GTVP Phases report, 2025).***

An overview of beneficiary distribution across trade areas under GTVP Phases I and II is presented in the table below, highlighting the relative concentration of participation by programme.

Table 3: Females' share of beneficiaries for the various trade areas

TRADE AREA	FEMALE %	BENEFICIARIES IN THE TRADE AREA
Cosmetology / Hairdressing	98%	3,046
Catering & Hospitality	92%	40
Garment / Dress Making	92%	10,828
Block Laying & Tiling	10%	197
Consumer Electronics	9%	1,193
Automotive Repair	4%	572
Construction / Welding	3%	926
Electrical Installation	3%	1,168
Plumbing	3%	572
Furniture Making	2%	128

Source: CTVET, GTVP data, 2025.

The data shows that female participation is overwhelmingly concentrated in traditionally female-dominated trades, with Cosmetology/Hairdressing recording 98% female participation out of the total of 3,046 beneficiaries in the trade area. This is followed by Catering & Hospitality and Garment/Dress Making, each at 92%. In contrast, female participation in technical and construction-related trades is significantly lower, with Block Laying & Tiling at 10%, Consumer Electronics at 9%, and Automotive Repair at 4%. Participation is particularly minimal in Construction/Welding, Electrical Installation, and Plumbing, each at 3%, and lowest in Furniture Making at 2%. Overall, the data reflect a pronounced gender segmentation across trade areas, with female participation largely concentrated in fashion and service-oriented programmes, while remaining limited in technical and male-dominated fields.

3.1.4. National Apprenticeship Programme (NAP)

The National Apprenticeship Programme (NAP) is a key Government intervention aimed at promoting self-employment and enhancing livelihoods through the provision of free technical and vocational training for young people across various trade areas. The Programme is designed to equip beneficiaries with industry-relevant skills, leading to certification under the National TVET Qualifications Framework (NTVETQF), and to support their transition into sustainable employment. In addition to skills training, beneficiaries are provided with start-up capital and equipment to enable them to establish and grow their own enterprises, thereby contributing to job creation and economic development.

As part of efforts to strengthen the delivery and effectiveness of the Programme, the Commission for Technical and Vocational Education and Training (CTVET), in collaboration with the National Apprenticeship Programme Secretariat, organized a nationwide capacity-building workshop from 20th to 29th August 2025 across all sixteen regions of Ghana. The workshop targeted Master Craft Persons (MCPs) within the informal sector, who serve as primary trainers in the apprenticeship system, with the objective to enhance their capacity to deliver competency-based training in line with national standards.

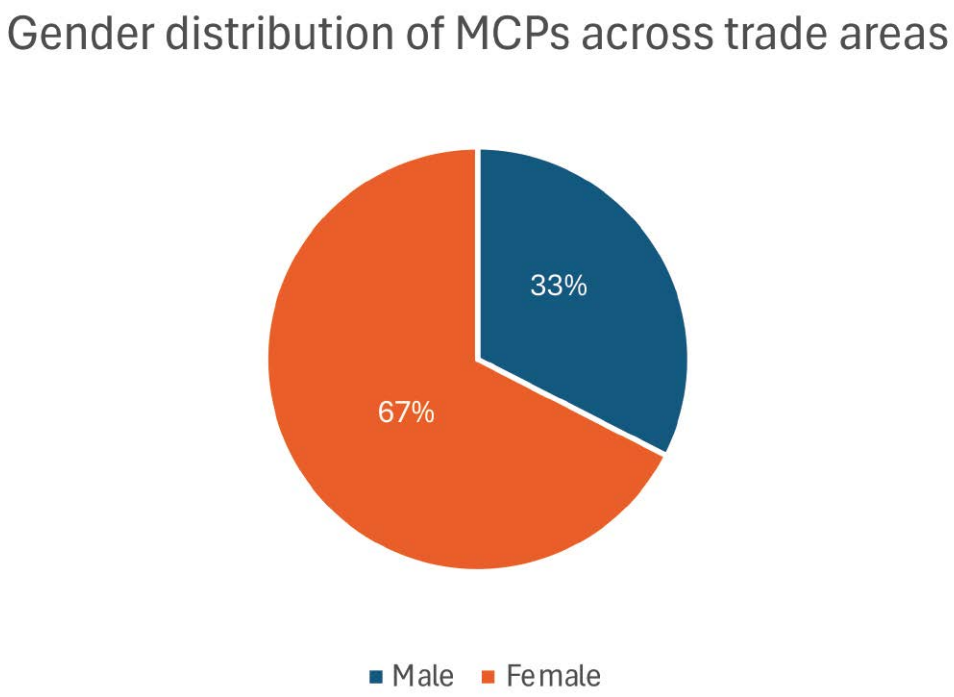
The training programme focused on equipping MCPs with the requisite knowledge and skills to facilitate structured training aligned with the NTVETQF and to prepare them for accreditation as informal training providers. Key thematic areas covered during the workshop included the transformation agenda of TVET in Ghana, accreditation requirements for informal sector facilitators and training centres, principles and methodologies of Competency-Based Training (CBT), development and application of unit specifications and learning materials, effective facilitation techniques, and the implementation of Recognition of Prior Learning (RPL).

A central outcome of the workshop was the preparation of participating MCPs as Trainers of Trainers (ToT), thereby strengthening the capacity of the informal apprenticeship system to deliver quality, standardized, and industry-relevant training. This intervention is expected to enhance the quality of skills acquisition among apprentices, improve certification outcomes, and deepen the integration of the informal sector into the formal TVET framework.

3.1.4.1. Gender Distribution of Master Craft Persons (MCPs) who participated in the training

The training was open to all persons who considered themselves to be Master Craft Persons (MCPs). The pie chart below gives details about the male-to-female gender distribution of the participants.

Figure 23: Gender distribution of Master Craft Persons (MCPs)



Source: CTVET Survey data, 2025.

The data indicate that female MCPs constitute the majority, accounting for 67% of participants, while male MCPs represent 33%. This distribution reflects a higher level of female engagement among Master Craft Persons within the programme, suggesting that a significant proportion of training beneficiaries at the MCP level are women.

An overview of the distribution of Master Craft Persons (MCPs) across various trade areas is presented in Table 5, highlighting participation by gender and trade specialization below.

Table 4: The distribution of MCPs across the various trade areas

S/N	TRADE AREA	MALE	FEMALE	TOTAL
1	Garment Making	360	1248	1608
2	Cosmetology	25	712	737
3	Welding and Fabrication	90	-	90
4	Auto Mechanic	59	-	59
5	Motor Mechanics	4	-	4
6	Auto Electrician	4	-	4
7	Catering and Hospitality	2	50	52
8	Tiling	10	1	11
9	Building Construction	68	1	69
10	Masonry	28	-	28
11	Agriculture (fish farming)	0	1	1
12	Poultry Production	0	1	1
13	Agriculture	3	-	3
14	Agribusiness	1	-	1
15	ICT	20	5	25

S/N	TRADE AREA	MALE	FEMALE	TOTAL
16	IT/Mobile Repairs	2	-	2
17	IT /Digital Services	1	-	1
18	Electricals & Electronics	64	-	64
19	Electrical Installation	1	-	1
20	Electrical Engineering	55	2	57
21	Engineering	10	-	10
22	Plumbing and Gas Fitting	45	-	45
23	Canoe & Boat Building	1	-	1
24	Engine Mechanic	1	-	1
25	Glass Aluminum	1	-	1
26	Welding and Fabrication	24	-	24
27	Carpentry and Joinery	20	-	20
28	Auto-Spray	1	-	1
29	Fridge Mechanics	1	-	1
30	Small Engines	3	-	3
31	Fish Farming	1	-	1
32	Metal and Aluminum Fab. (Glazing and Gliding)	1	-	1
33	Printing Press	1	-	1
34	Shoe Making	12	4	16
35	Beading and Fascinator	1	3	4
36	Wood Technology (Carpentry)	33	-	33
37	Leather work	17	-	17
38	Steel Bending	12	-	12
39	Phone Technician	1	-	1
40	Small Engine Repairs	3	-	3
41	Weaving	5	26	31
42	General Goods /Trading	2	4	6
43	Metal Wrk / Spraying	1	-	1
44	Mechanical Engineering	1	-	1
45	Textiles	1	-	1
46	Media	1	-	1
47	Aluminum Fabrication	2	-	2
48	Bakery	-	1	1
49	Barbering	1	-	1
50	Digital marketing Technology	1	-	1
51	Event Management	-	1	1

S/N	TRADE AREA	MALE	FEMALE	TOTAL
52	Metal works (Steel Bending)	1	-	1
53	Aluminum and Glass work	2	-	2
54	Painting	1	-	1
55	Biogas	1	-	1
56	Multimedia	1	-	1
57	Interior Décor	-	1	1
58	Decoration / Craftmanship	1	1	2
59	Other Trade	14	54	68
60	Batik and tie-dye	0	1	1
61	Refrigeration and air-condition	1	-	1
62	Interior Décor	0	7	7
	TOTAL	**1023**	**2124**	**3147**

Source: CTVET Data, 2025.

The data shows that participation is heavily concentrated in a few trade areas, particularly Garment Making (1,608 MCPs) and Cosmetology (737 MCPs), both of which are predominantly female dominated. Other notable areas include Welding and Fabrication (combined 114 MCPs), Building Construction (69), Electricals and Electronics (64), and Auto Mechanic-related trades, which are largely male-dominated. Overall, female participation is significantly higher, with 2,124 females compared to 1,023 males, reinforcing the trend observed in earlier findings. While female MCPs are largely concentrated in fashion, beauty, and service-oriented trades such as Catering and Hospitality and Weaving, male MCPs dominate technical, engineering, and construction-related trades. The table also reflects a wide diversity of smaller trades with minimal participation, indicating a broad but uneven spread of skills across the TVET landscape.

CHAPTER 4
QUALITY IN TVET

4.0. INTRODUCTION

Quality TVET is the extent to which training systems equip learners with relevant, industry-oriented skills, supported by adequate infrastructure, qualified facilitators, standardised curricula, and robust assessment systems. It ensures that graduates possess the knowledge, skills, and attitudes required for employment, entrepreneurship, and lifelong learning, while also meeting national and international standards, such as those outlined in the National TVET Qualifications Framework (NTVETQF).

4.1. QUALITY TVET INTERVENTIONS

The Commission has undertaken a series of strategic initiatives to enhance the quality, relevance, and effectiveness of TVET delivery in Ghana. These initiatives aim to standardize training, expand access, improve certification systems, and establish sustainable funding mechanisms. The results of these initiatives demonstrate significant progress in developing a skilled, competent, and competitive workforce. The combined implementation of these initiatives has led to:

- Enhanced standardisation and quality assurance across the TVET system
- Expansion of training capacity and access to skills development.
- Enhanced alignment between training and labour market requirements
- Enhanced facilitator skills and organisational performance
- Greater certification and recognition of skills in both formal and informal sectors
- Improved employment outcomes and workforce competitiveness.

Key Results of Commission for Technical and Vocational Education and Training Interventions

NO.	INTERVENTIONS	KEY RESULTS
1.	**Standardization and Quality Assurance**	**i.** 445 CBT packages developed across 89 programmes **ii.** 16 Sector Skills Bodies (SSBs) established to align curricula with industry needs
2.	**Expansion of Training Capacity**	**i.** 225 TVET institutions are accredited to deliver Competency-Based Training (CBT) **ii.** 25,000 facilitators trained in CBT methodologies
3.	**Strengthened Financing and Partnerships**	8 national and international partnerships established
4.	**Strengthened Certification and Progression (NTVETQF)**	**i.** 139,154 learners certified at Certificate II (Level 4) **ii.** 45,696 learners certified at Diploma and HND levels
5.	**Apprenticeship and Skills Development Programmes**	40,179 learners certified under apprenticeship and voucher programmes

Source: CTVET Data, 2025.

These strategic interventions by the Commission demonstrate a systematic, multifaceted approach to improving the quality of TVET delivery in Ghana. By raising curriculum standards, standardizing certification, enhancing institutional capacity, and promoting sustainable financing, the TVET system is becoming better equipped to deliver relevant, demand-driven, and quality skills development. Sustaining these achievements will require continuous investment, stronger industry collaboration, and continuous realignment with national development priorities, ensuring that TVET remains a vital driver of economic transformation and inclusive growth in Ghana.

4.2. KEY FACTORS AFFECTING QUALITY TVET DELIVERY IN GHANA

The effectiveness of TVET in Ghana is shaped by a range of systemic factors that affect the quality, relevance, and outcomes of training delivery. Although significant progress has been made in strengthening policy frameworks, institutional structures, and competency-based training approaches, the sector continues to face persistent constraints that limit its full potential to drive skills development and economic transformation. Understanding these challenges is critical to informing targeted policy interventions and improving the overall performance of the TVET system.

This section examines the key factors affecting TVET delivery, including inadequate and fragmented financing, weak industry linkages, insufficient infrastructure and equipment, capacity gaps among facilitators, and weak learner support systems. These factors collectively undermine institutions' ability to deliver quality, industry-relevant training and to produce competent, employable graduates. Addressing these challenges will require coordinated efforts across government, industry, and other stakeholders to strengthen resource allocation, enhance partnerships, build institutional capacity, and ensure that TVET systems are responsive, inclusive, and aligned with labour market needs. Details are shown in the table below.

Factors Affecting TVET Delivery in Ghana

NO.	KEY CONSTRAINT	IMPLICATIONS FOR TVET DELIVERY
1.	**Inadequate Financing**	Limited and inconsistent funding undermines infrastructure development, equipment procurement, consumables, and the quality of training. Heavy reliance on government budgets, donor support, and household contributions creates funding gaps and inequities across institutions, constraining effective delivery.
2.	**Weak Industry Linkages and Limited Workplace Experience Learning Opportunities**	Insufficient collaboration between TVET institutions and industry limits access to Workplace Experience Learning (WEL), internships, and apprenticeships. This weakens alignment between training and labour market needs, undermining graduate employability and the relevance of skills.
3.	**Inadequate Infrastructure, Equipment, and Learning Resources**	Many institutions face shortages of modern workshops, laboratories, tools, and consumables, and some equipment is outdated or non-functional. This limits hands-on training, which is central to competency-based TVET.
4.	**Capacity Gaps in Facilitators and Instructional Delivery**	There are challenges stemming from insufficient numbers of qualified facilitators, limited industry exposure, and gaps in pedagogical and technical competencies. These challenges affect the effective implementation of competency-based training (CBT) and the quality of learning outcomes.
5.	**Weak Learner Support Systems and Career Guidance Structures**	Although present in many institutions, learner support systems, including career guidance and counselling, job placement services, and welfare support, are often inadequate or inconsistently implemented. This undermines learner retention, completion, and transition into employment or entrepreneurship.

Source: CTVET Data, 2025.

4.3. QUALITY OF TVET DELIVERY

The analysis of TVET delivery in Ghana shows a system that is rapidly expanding access and participation but faces significant challenges in maintaining training quality, consistency, and effectiveness. Although reforms led by the Commission have improved policy frameworks, standardization, and institutional structures, the findings throughout this chapter highlight a growing imbalance between system expansion and the capacity to deliver quality training.

At the institutional level, infrastructure remains a significant challenge. Many TVET institutions lack sufficient classrooms, workshops, and support facilities, with some relying on temporary or makeshift structures. These problems are compounded by unfinished infrastructure projects and delays in their completion, largely due to funding constraints. Meanwhile, water, sanitation, and hygiene (WASH) facilities, as well as learner support infrastructure such as recreational and dining services, remain inadequate and underdeveloped, affecting learners' well-being, participation, and the overall learning experience.

The effectiveness of practical training is further constrained by the availability and quality of training equipment, consumables, and modern technologies. Although many institutions have access to workshops and tools, significant gaps remain in the quality, functionality, and relevance of these resources to industry needs, creating a disconnect between training and labour market expectations. This is compounded by weak and inconsistent industry engagement, which restricts opportunities for work-based learning, equipment support, and exposure to real-world work environments.

Facilitator capacity is a key determinant of training quality. Despite strong commitment, gaps in technical expertise, pedagogical skills, and industry exposure continue to affect the delivery of competency-based training. Although development partners have contributed significantly to capacity building, coverage remains uneven, and many institutions lack access to ongoing professional development systems.

From the learners' perspectives, participation levels are generally high, reflecting growing interest in and demand for TVET. However, participation is heavily affected by financial constraints, personal circumstances, and limited access to support systems, highlighting issues of equity and inclusion. Most learners receive little or no financial support, and the costs of training, including consumables, often burden individuals and their families.

A key issue emerging from the analysis is the challenge of financing. TVET institutions rely heavily on internally generated funds, PTA contributions, and fragmented external support, with limited and inconsistent government funding. This financing model is inadequate to support the scale of infrastructure development, equipment provision, and learner support required for high-quality TVET delivery. At the same time, development partner support, though significant, is often focused on training and policy development, with less attention to infrastructure, consumables, and system-wide sustainability.

Despite these challenges, the analysis also highlights significant opportunities. A robust policy framework, rising enrolment, dedicated facilitators, and growing recognition of TVET as a catalyst for economic growth provide a strong foundation for transformation. Moreover, the NTVETQF offers a structured pathway for standardisation and progression, while emerging fields such as digital skills, green TVET, and entrepreneurship offer avenues for future-focused skills development.

Overall, the findings indicate that the quality of TVET delivery in Ghana is shaped by interconnected factors, including infrastructure, resources, governance, financing, and industry linkages. Addressing these challenges will require a coordinated, strategic approach that prioritises investment in infrastructure and equipment, strengthens facilitator capacity, expands learner support systems, and fosters deeper engagement with industry.

Ghana's TVET system is constrained not by demand but by its capacity to deliver quality at scale. Bridging the gaps between access and quality, and between training and employment, will be vital to ensuring that TVET fulfils its role as a catalyst for inclusive economic growth, job creation, and national development. This chapter, therefore, offers a detailed analysis of the current state, challenges, and opportunities in TVET delivery, providing evidence-based insights to guide policy reforms and strategic initiatives to enhance the quality, inclusiveness, and sustainability of the TVET system.

4.4. INFRASTRUCTURE

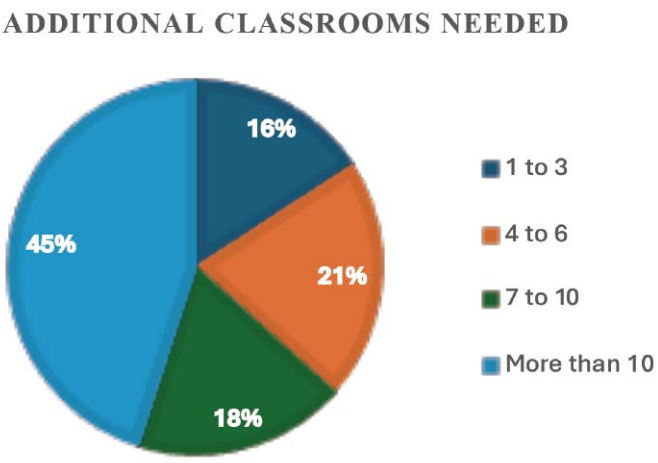
Infrastructure underpins TVET delivery by providing the physical environment in which teaching, learning, and practical skills development take place. This section assesses the current state of infrastructure in TVET institutions, focusing on vital facilities, including classrooms, workshops, ICT laboratories, dormitories, and other key training areas. These elements are essential for enabling both theoretical and practical training and for providing a safe and effective learning environment. The analysis evaluates how well existing infrastructure meets training requirements and identifies challenges related to adequacy, functionality, and expansion. Understanding these factors is vital for assessing institutional capacity and pinpointing areas for improvement in the quality and effectiveness of TVET delivery. Gaps in infrastructure at TVET institutions are hindering Ghana's skills development.

In the infrastructure section, the study examined classroom infrastructure across the various TVET institutions and the need for additional classrooms and other facilities. Most respondents (principals) indicated that additional classrooms were needed to support improved teaching and learning across the various institutions. See the graph and its interpretation below:

Number of Additional Classrooms Needed

Adequate classroom infrastructure is essential for effective teaching and learning in TVET institutions, particularly in supporting both theoretical instruction and competency-based training. As enrolment in TVET continues to expand, demand for additional classroom space is growing. This is essential to prevent overcrowding, improve learner engagement, and enhance the overall quality of training delivery. Figure 26 illustrates the distribution of additional classroom needs, categorised as 1 to 3 classrooms, 4 to 6 classrooms, 7 to 10 classrooms, and more than 10 classrooms. It reflects the extent of infrastructure deficits and the scale of expansion required to meet current and future training demands.

Figure 24: Additional classrooms needed in TVET institutions

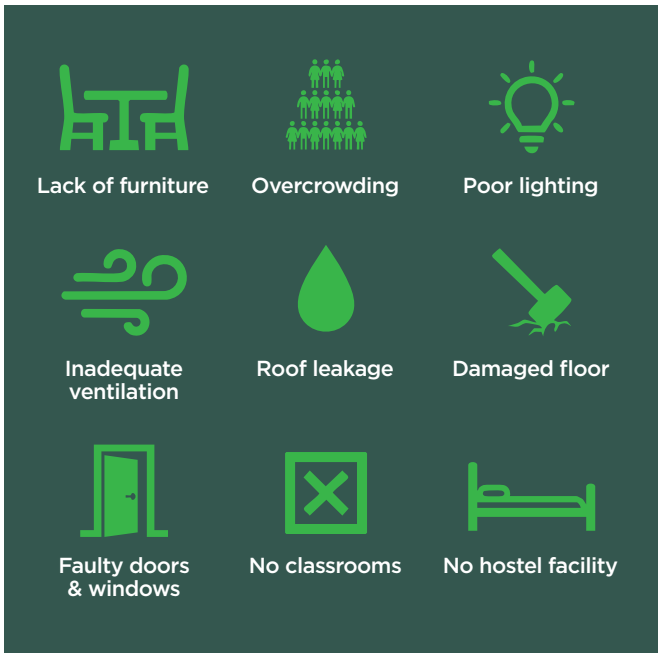


Source: CTVET Survey data, 2025.

The findings indicate that out of the total number of institutions that participated in the survey stated earlier, 45% of them require more than 10 additional classrooms, highlighting significant infrastructure deficits and substantial expansion needs across the TVET system. This is followed by 21% of institutions requiring 4 to 6 classrooms and 18% needing 7 to 10 classrooms, suggesting moderate to high levels of unmet classroom demand. A smaller proportion (16%) reports needing 1 to 3 classrooms, indicating relatively lower but still notable infrastructure gaps. Overall, the results reveal that the majority of TVET institutions face considerable shortages of classroom space, with many requiring large-scale infrastructure development. This underscores the need for targeted investment to expand physical infrastructure and support the growing demand for TVET.

4.5. INFRASTRUCTURE-RELATED ISSUES

Many TVET institutions continue to face significant infrastructure challenges. These constraints not only undermine instructional quality but also limit enrolment capacity, reduce learner engagement, and hinder the effective implementation of training programmes. This section examines the key infrastructure issues affecting TVET institutions. Institutions also report a range of infrastructure-related issues that affect their ability to deliver quality education and training, including



4.6. UNFINISHED PROJECTS

The persistence of unfinished projects highlights challenges in infrastructure development and emphasises the need for improved project management and targeted investment to strengthen TVET institutions' capacity to deliver quality skills training. Many TVET institutions also face stalled infrastructure projects. Nearly one-third (30.2%) report unfinished classroom facilities, almost one-quarter (23.4%) have incomplete dormitories, and 18% report workshops that remain under construction. These uncompleted projects include:

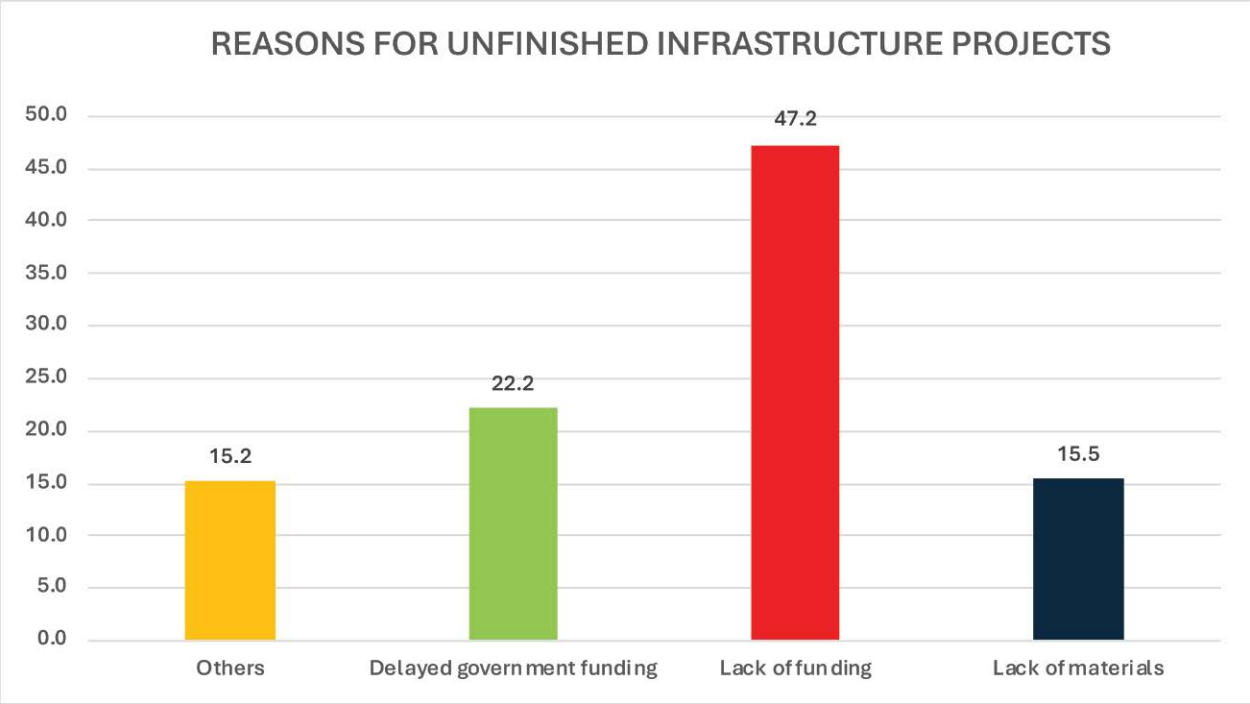
The main obstacle is funding, with 85% of these projects hindered by insufficient financial or material resources.

Additionally, nearly two-thirds (63.5%) of respondents report that further infrastructure development is required to meet current demand.

4.6.1. Reasons for Unfinished Infrastructure Projects

The completion of infrastructure projects is critical to expanding access and improving the quality of TVET delivery, as it directly supports practical training, competency development, and the effective implementation of Competency-Based Training (CBT). However, delays and the non-completion of infrastructure projects undermine the availability of adequate learning environments. The figure below illustrates the factors responsible for unfinished infrastructure projects, including insufficient funding, delayed government funding, material shortages, and other related factors. Each category shows the proportion of respondents identifying these constraints.

Figure 25: Reasons for unfinished infrastructure projects in TVET institutions



Source: CTVET Survey data, 2025.

The findings indicate that lack of funding (47.2%) is the most significant factor behind unfinished infrastructure projects, accounting for nearly half of all responses. This is followed by delayed government funding (22.2%), which highlights inefficiencies in fund disbursement and project implementation timelines. Additionally, the lack of materials (15.5%) and other factors, such as lack of project knowledge, land disputes, and contractor issues (15.2%), further contribute to project delays, though to a lesser extent. In the context of quality TVET, these results emphasise that financial constraints, both in terms of adequacy and timeliness, are the primary bottlenecks affecting infrastructure development. The persistence of unfinished projects limits access to essential facilities such as workshops, laboratories, and classrooms, thereby constraining hands-on training and the effective delivery of CBT. Addressing these challenges requires strengthened financing mechanisms, improved budget execution and disbursement systems, and better project planning and procurement processes to ensure the timely completion of infrastructure and enhance the overall quality and effectiveness of TVET delivery.

Beyond core training infrastructure, access to water and sanitation facilities is essential to maintaining a safe and conducive learning environment in TVET institutions.

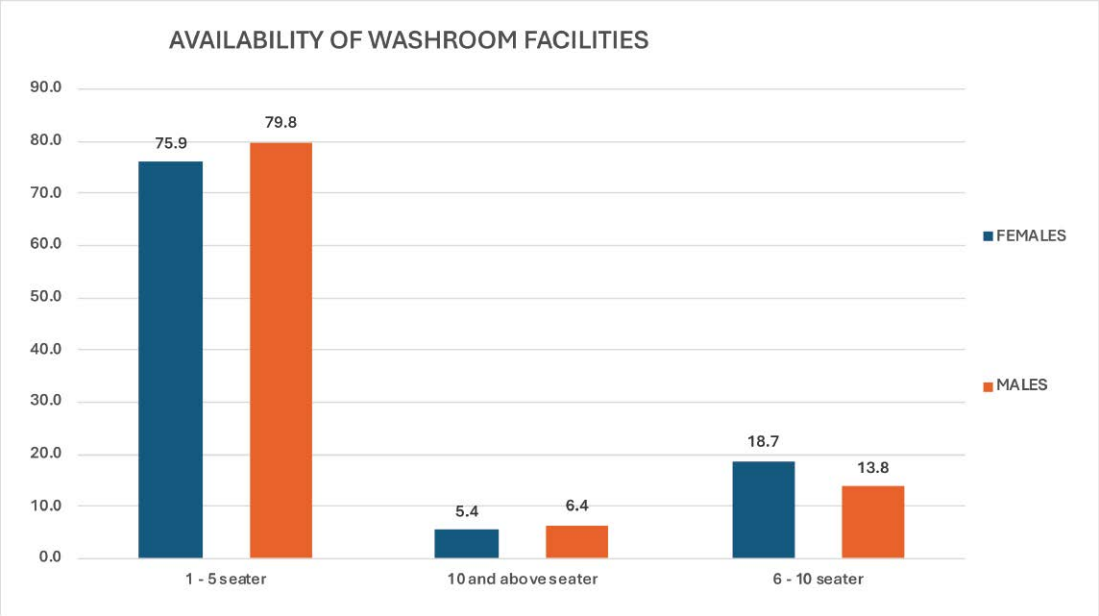
4.7. WATER AND SANITATION

Water and sanitation are vital to a safe, healthy, and supportive learning environment in TVET institutions. This section reviews the state of Water, Sanitation, and Hygiene (WASH) facilities in TVET institutions, focusing on water sources, the availability and adequacy of washrooms and toilets, and overall sanitation conditions. These elements are essential for safeguarding learners' health, dignity, and active participation in training programmes, particularly in practical, hands-on settings. The analysis provides insights into the extent to which existing WASH infrastructure meets institutional needs, as well as the challenges of access, functionality, and maintenance. Understanding these conditions are essential for assessing the quality of the learning environment and for identifying areas for improvement in TVET delivery. Access to safe, clean, and reliable water and sanitation facilities is essential for education, with direct effects on learners' health, attendance, and safety. Inadequate sanitation disproportionately affects female learners, particularly after puberty, contributing to higher dropout rates or absenteeism.

4.7.1. Availability of Washroom Facilities

Adequate Water, Sanitation, and Hygiene (WASH) facilities are essential for ensuring a safe, inclusive, and conducive learning environment in TVET institutions. The availability and capacity of washrooms, disaggregated by gender, are critical indicators of institutional readiness to support learner welfare, health, retention, and the quality of training delivery. This figure presents the distribution of washroom facilities by capacity category for male and female learners. It shows the proportion of washroom facilities available across three capacity categories: 1–5-seater, 6–10-seater, and 10-seater and above, disaggregated by gender in TVET institutions. This reflects both the availability and scale of sanitation infrastructure relative to learner needs.

Figure 26: Availability of Washroom Facilities



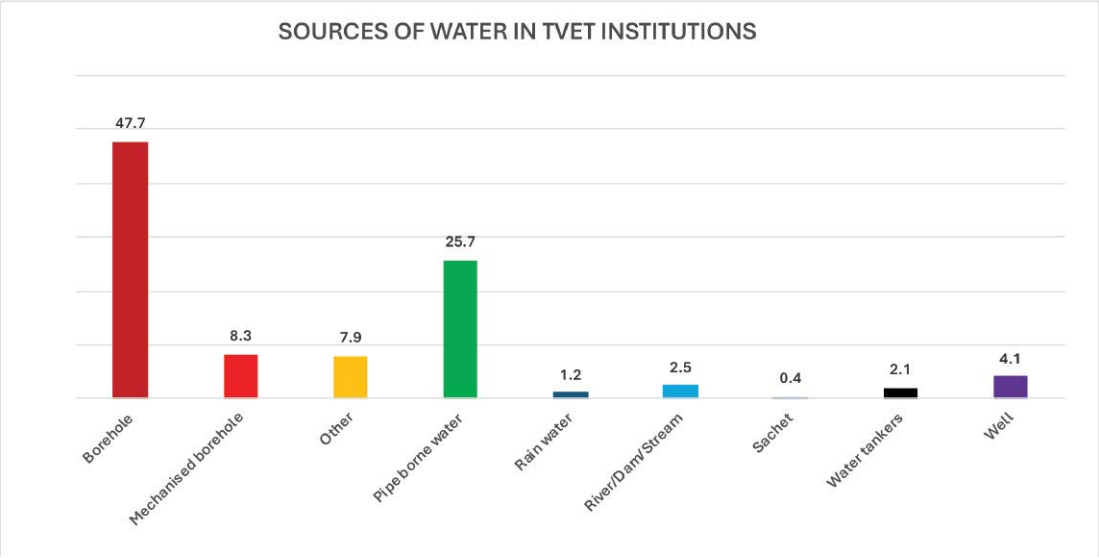
Source: CTVET Survey data, 2025.

The findings show that most washroom facilities fall within the 1–5-seater category, accounting for 75.9% among females and 79.8% among males, indicating that most institutions rely on small-capacity sanitation facilities. Moderate-capacity facilities (6–10 seaters) are less common, accounting for 18.7% among females and 13.8% among males, while large-capacity facilities (10 or more seaters) are limited, at 5.4% among females and 6.4% among males. In the context of quality TVET, these results suggest that although washroom facilities are present, their capacity is likely inadequate relative to the growing learner population, particularly in institutions experiencing increased enrolment under Free TVET. The dominance of low-capacity facilities may lead to congestion, hygiene challenges, and reduced accessibility, especially during peak periods. Furthermore, the slight variations between male and female facilities raise concerns about gender responsiveness and equity in infrastructure provision. Additionally, the findings highlight the need to scale up sanitation infrastructure in line with enrolment growth, ensure gender-sensitive planning, and align facility provision with recommended WASH standards to support learner well-being, retention, and the delivery of quality TVET.

Sources of Water

Access to reliable, safe water is a fundamental component of WASH (Water, Sanitation, and Hygiene) infrastructure, which is essential for maintaining health, supporting sanitation facilities, and ensuring a conducive learning environment in TVET institutions. An adequate water supply is particularly critical for workshops, laboratories, and general institutional operations. The figure below shows the main sources of water available to TVET institutions.

Figure 27: Sources of water in TVET institutions



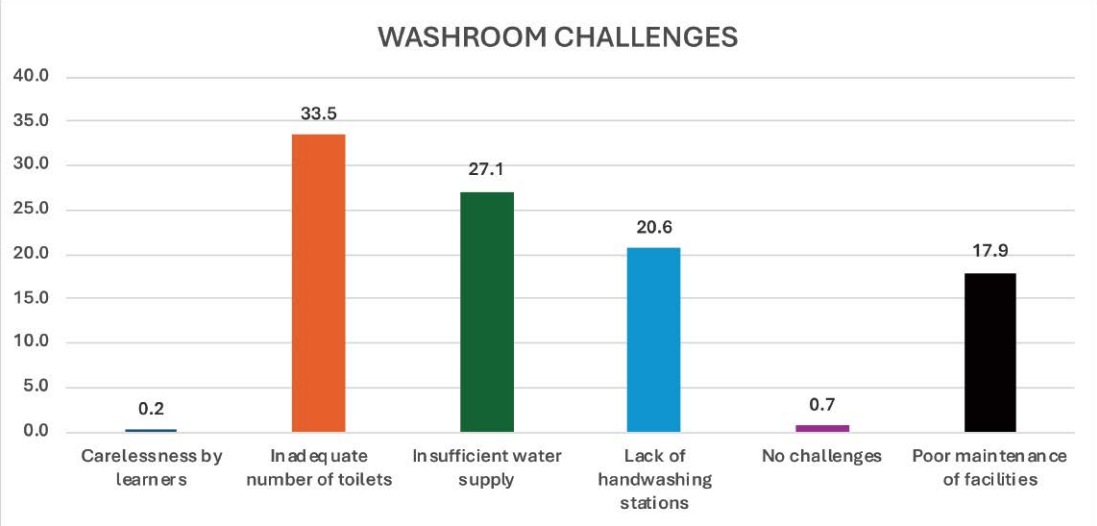
Source: CTVET Survey data, 2025.

The analysis indicates that boreholes are the dominant source of water, accounting for 47.7%, followed by pipe-borne water (25.7%), suggesting that most institutions rely on groundwater and limited formal water systems. Mechanised boreholes (8.3%) and other sources such as springs, water vendors, and lakes (7.9%) also contribute moderately, while wells (4.1%) represent a smaller share. Less reliable or alternative sources, such as rivers/dams/streams (2.5%), water tankers (2.1%), rainwater (1.2%), and sachet water (0.4%), account for only a small share, indicating limited dependence on these sources. Overall, the results suggest that while most institutions have access to water, heavy reliance on boreholes reflects limited access to consistent, treated, and centralised water systems, which may affect water quality, reliability, and sustainability. This highlights the need for increased investment in safe, reliable water infrastructure to support quality TVET delivery

Washroom Challenges

Adequate and functional washroom facilities are essential for maintaining hygiene, promoting learner well-being, and ensuring a safe and conducive learning environment in TVET institutions. However, challenges with sanitation infrastructure and maintenance can significantly affect the quality of training delivery and the learner experience. This figure highlights the key challenges associated with washroom facilities in TVET institutions. It presents washroom-related challenges, including an inadequate number of toilets, an insufficient water supply, a lack of handwashing stations, poor facility maintenance, learner carelessness, and instances with no reported challenges. It reflects the relative severity and prevalence of each challenge across institutions.

Figure 28: Washrooms challenges in TVET institutions



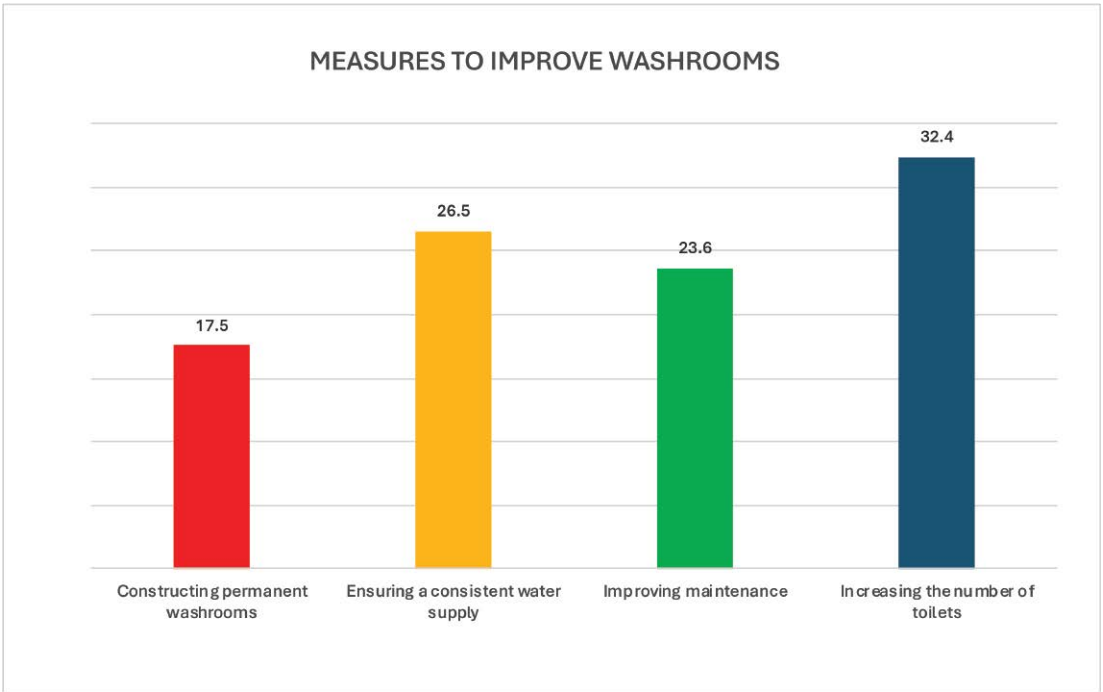
Source: CTVET Survey data, 2025.

The findings indicate that the most significant challenge is the inadequate number of toilets (33.5%), followed by insufficient water supply (27.1%) and a lack of handwashing stations (20.6%), highlighting major gaps in basic WASH infrastructure. Poor maintenance of facilities is also a notable challenge (17.9%), suggesting weaknesses in facility management and upkeep. In contrast, carelessness by learners (0.2%) and no challenges reported (0.7%) are minimal, indicating that the issues are largely structural and systemic rather than behavioural. Overall, the results reveal that washroom challenges in TVET institutions are primarily driven by infrastructure deficits, inadequate water supply, and maintenance gaps, with significant implications for hygiene, health, and the overall quality of the learning environment.

Measures to improve washroom facilities

Improving washroom facilities is essential to enhancing hygiene, learner well-being, and the overall quality of the learning environment in TVET institutions. Addressing existing WASH challenges requires a combination of infrastructure development, a reliable water supply, and effective maintenance. Figure 31 summarises the key measures identified by stakeholders to improve washroom conditions in TVET institutions.

Figure 29: Measures to improve washroom facilities in TVET institutions



Source: CTVET Survey data, 2025.

The analysis shows that the most frequently suggested measure is increasing the number of toilets, accounting for 32.4% of responses. This indicates that many institutions face challenges due to insufficient sanitation capacity relative to their learner populations. The second most prominent measure is ensuring a consistent water supply (26.5%), highlighting the importance of reliable water availability for maintaining hygiene and the proper functioning of sanitation facilities. Improving maintenance of existing washrooms accounts for 23.6%, suggesting that some facilities already exist but require better upkeep and management. Constructing permanent washrooms accounts for 17.5%, indicating that although some institutions lack permanent structures, the greater concern is improving and expanding existing facilities rather than building entirely new ones. These findings emphasise the need for targeted investments in sanitation infrastructure and maintenance systems to enhance the quality of learning environments within the TVET sector.

Beyond WASH conditions, the quality of the learning environment is also shaped by the availability of recreational and dining facilities, which are essential to learner well-being and engagement.

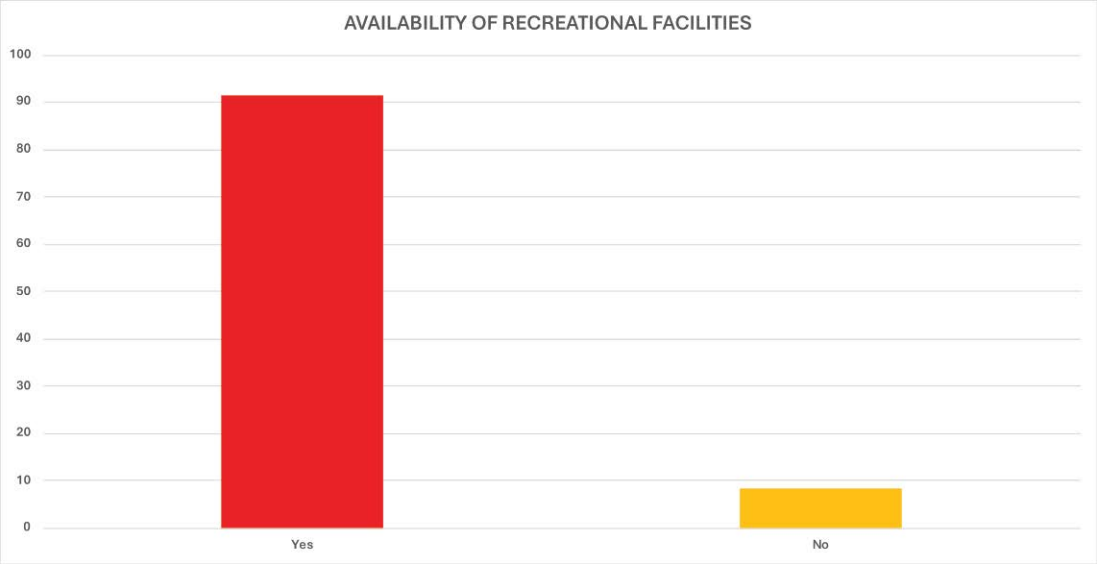
4.8. RECREATIONAL AND DINING FACILITIES

Recreational and dining facilities are integral to learner welfare in TVET institutions, supporting learner well-being, engagement, and the overall training experience. These facilities promote physical health and social interaction while providing essential services that enhance comfort and productivity during training. This section examines the availability, condition, and adequacy of recreational facilities and dining services in TVET institutions, including sports and leisure spaces, canteens, and eating arrangements. The analysis highlights the extent to which these facilities meet learner needs and the challenges related to infrastructure, capacity, and management, which have implications for the quality of the learning environment and the effectiveness of TVET delivery.

The findings indicated that only 18.7% of institutions reported having sufficient recreational facilities, and even fewer indicated that these facilities are fully functional (3.9%) or well maintained (12.8%). Nearly 4% reported having no recreational facilities at all.

The figure below illustrates the availability of various types of recreational facilities in TVET institutions. These include football fields, volleyball courts, basketball courts, indoor games, gymnasiums, recreational parks, table tennis areas, and general exercise facilities, as well as institutions with no recreational facilities. The chart highlights the relative prevalence of each facility type across the system.

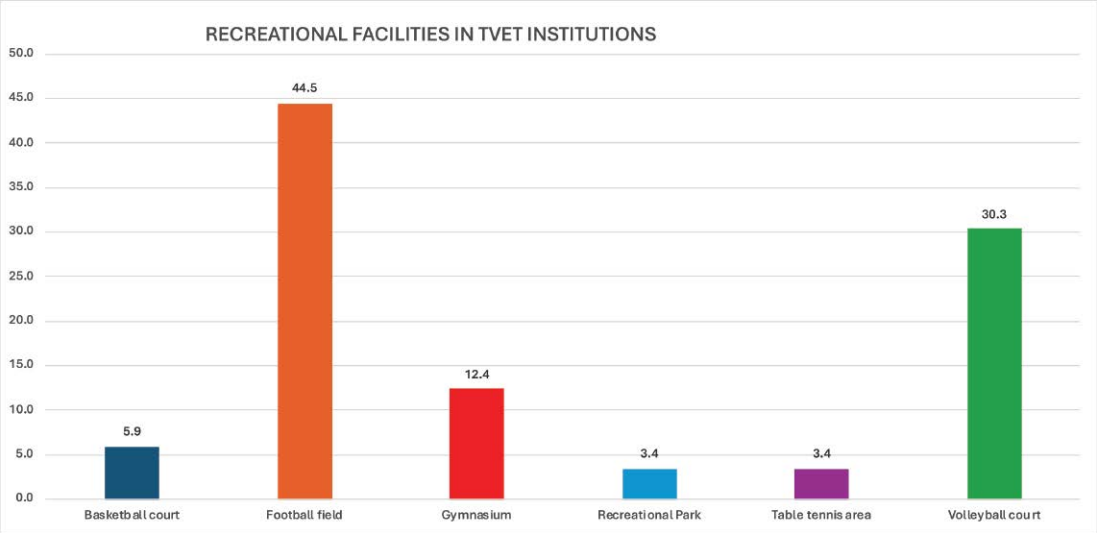
Figure 30: Availability of Recreational Facilities



Source: CTVET Survey data, 2025.

This graph represents the availability of recreational facilities within TVET institutions, with about 91.5% confirming access and 8.5% indicating absence. This suggests a strong infrastructure supporting learner well-being and engagement. However, the minority without access highlights the disparities in the institutions.

Figure 31: Recreational facilities in TVET institutions



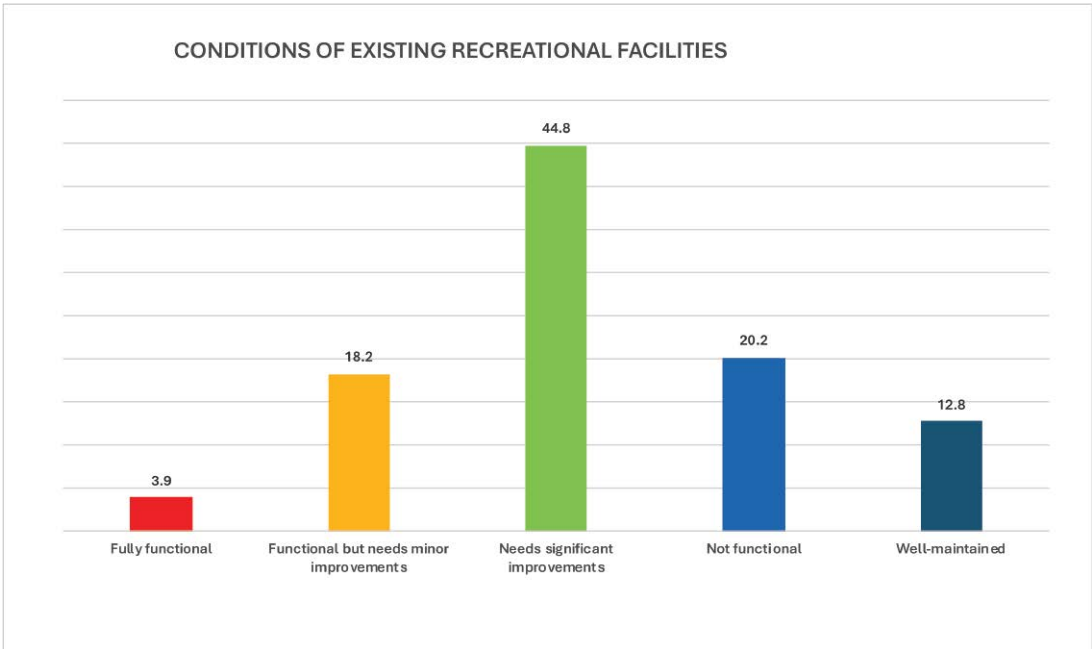
Source: CTVET Survey data, 2025.

The findings indicate that football fields are the most widely available recreational facility, accounting for 44.5% of responses, followed by volleyball courts at 30.3%, suggesting a strong emphasis on outdoor sports. Other facilities are relatively limited, including basketball courts (5.9%), recreational parks (3.4%), and table tennis areas (3.4%), while gymnasiums (12.4%). Overall, the results suggest that while some institutions provide basic outdoor recreational options, there is a lack of diversity and limited access to comprehensive recreational infrastructure, particularly indoor and fitness-related facilities.

Conditions of Recreational Facilities

The condition of recreational facilities is a key aspect of the overall learning environment in TVET institutions, influencing learner well-being, engagement, and institutional attractiveness. Beyond availability, the quality and functionality of these facilities determine their effectiveness in supporting holistic learner development. The figure below presents the distribution of recreational facilities by condition, categorised as fully functional, functional with minor improvements needed, and needing significant improvements.

Figure 32: Conditions of existing recreational facilities in TVET institutions



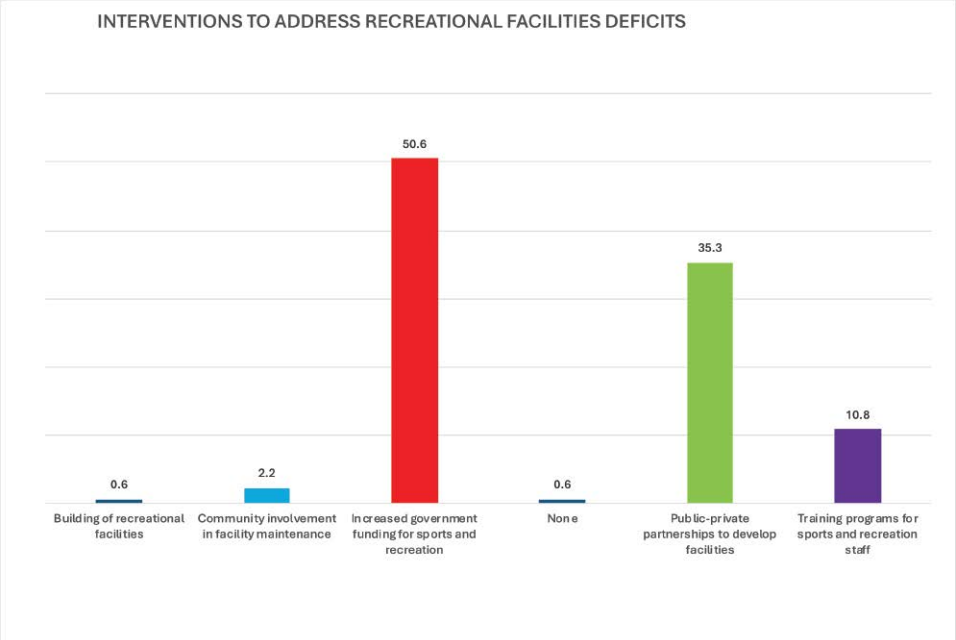
Source: CTVET Survey data, 2025.

The findings indicate that a large proportion of recreational facilities are in suboptimal condition, with 44.8% reported as needing significant improvements, the most prevalent category. Additionally, 20.2% of facilities are not functional, further highlighting widespread maintenance and usability deficiencies. A moderate proportion (18.2%) is functional but requires minor improvements, while only 12.8% is considered well-maintained. Notably, a very small proportion (3.9%) are fully functional, indicating that only a limited number of institutions have recreational facilities operating at optimal standards. Overall, the results suggest that although recreational facilities exist in many TVET institutions, the majority are underperforming or in need of rehabilitation, indicating significant gaps in maintenance and infrastructure management.

Interventions to address the recreational facilities deficit

Addressing deficiencies in recreational facilities is essential to improving the overall learning environment and supporting holistic learner development in TVET institutions. Strategic interventions, ranging from increased public investment to partnerships and capacity development, are required to ensure that recreational infrastructure is functional, accessible, and sustainable. The figure below illustrates the distribution of proposed interventions to improve recreational facilities. These include increased government funding for sports and recreation, public–private partnerships (PPPs) for facility development, training programmes for sports and recreation staff, community involvement in facility maintenance, the construction of new recreational facilities, and cases where no intervention was identified.

Figure 33: Interventions to address recreational facilities deficits



Source: CTVET Survey data, 2025.

The findings show that increased government funding for sports and recreation is the most dominant intervention, accounting for 50.6% of responses and indicating a strong reliance on public investment to address infrastructure deficits. This is followed by public–private partnerships (PPPs) at 35.3%, reflecting recognition of the need for collaborative financing and development approaches. Training programmes for sports and recreation staff account for 10.8%, suggesting moderate attention to capacity development. In contrast, community involvement in facility maintenance (2.2%) and the construction of new recreational facilities (0.6%) receives minimal emphasis, while 0.6% indicate no intervention. Overall, the results suggest that stakeholders prioritise financial investment and partnerships over grassroots or community-driven approaches, highlighting a preference for systemic, large-scale solutions to infrastructure challenges.

4.9. DINING AND CANTEEN FACILITIES IN TVET INSTITUTIONS

Dining and canteen facilities are a critical component of learner welfare in TVET institutions, as they directly affect learners' health, well-being, and overall academic performance. Access to safe, affordable, and adequate food services is essential to sustaining learner engagement, concentration, and participation in both theoretical and practical training activities. In institutions where learners spend long hours in competency-based training, the availability of functional dining spaces and quality food services is even more important.

Beyond basic nutrition, well-structured dining facilities contribute to a conducive learning environment by promoting hygiene, social interaction, and inclusivity. Conversely, inadequate or poorly managed canteen services, characterised by limited seating, high food costs, poor sanitation, and a lack of designated eating areas, can negatively affect learner satisfaction, retention, and performance. As part of a holistic approach to quality TVET delivery, it is therefore essential to assess the availability, accessibility, and condition of dining and canteen facilities across institutions.

This section examines the state of dining and canteen services in TVET institutions, highlighting key challenges, implications for learner welfare, and areas requiring policy attention to strengthen the overall quality and effectiveness of the TVET system. Fewer than one in five institutions (18.9%) report having well-built dining facilities, while many rely on makeshift spaces (38.2%) or have no designated dining area (42.7%).

have incomplete dormitories, and 18% report workshops that remain under construction. These uncompleted projects include:

The findings reveal that insufficient seating capacity is the most significant challenge, accounting for 33.5% of responses, indicating that existing dining facilities cannot adequately accommodate the number of learners. This is followed by the 25.1% lack of designated eating areas, highlighting structural gaps in institutional planning. An inadequate number of food vendors (12.6%) and high food costs (10.7%) further constrain access to food services, affecting affordability and availability. Additionally, poor hygiene and sanitation, and limited meal variety each account for 10.7% and 8.0%, respectively, pointing to quality concerns in food provision. A very small proportion (0.3%) reports no canteen services, suggesting that a complete absence of facilities is rare but still present. Overall, the results indicate that dining challenges are primarily driven by infrastructure limitations, inadequate service provision, and quality concerns, which collectively affect learner welfare and the overall quality of the learning environment.

4.10. TRAINING AND EQUIPMENT

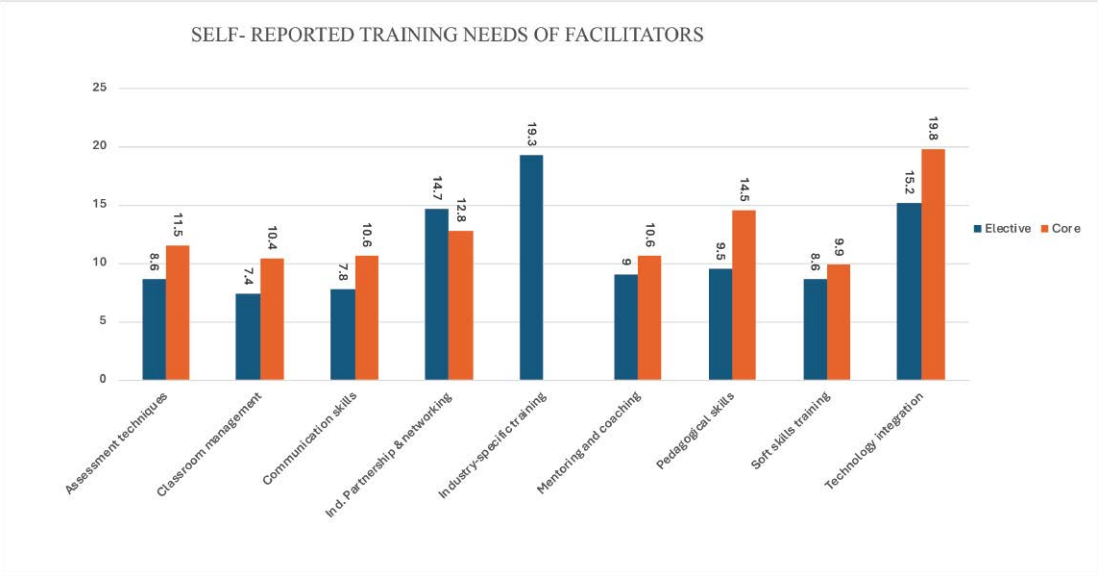
Training equipment and resources are fundamental to the effective delivery of TVET, as they underpin the practical, competency-based nature of skills development. The availability, adequacy, and relevance of tools, machinery, and instructional materials determine how effectively learners can gain hands-on experience aligned with industry standards. In a system designed to produce job-ready graduates, access to modern, functional equipment is essential to bridging the gap between training and the labour market.

However, many TVET institutions face challenges with outdated equipment, insufficient tools, and limited access to consumables for practical training. These constraints can compromise instructional quality, reduce learners' exposure to real-world applications, and ultimately affect employability outcomes. This section examines the state of training equipment and resources in TVET institutions, highlighting key gaps, their implications for skills development, and the need for strategic investments to enhance training quality and industry relevance.

Continuous Professional Development (CPD)

The effectiveness of TVET delivery depends largely on the facilitators' capacity to deliver competency-based, industry-relevant training. Continuous Professional Development (CPD) is therefore essential to equip facilitators with the pedagogical, technical, and soft skills needed to meet evolving labour market demands. The figure below outlines the training needs across various competency areas for trade and generic facilitators. These areas include assessment techniques, classroom management, communication skills, industry partnerships and networking, industry-specific training, mentoring and coaching, pedagogical skills, soft skills training, and technology integration. The chart highlights differences in training priorities between the two groups.

Figure 34: Self-Reported Training Needs of Facilitators



Source: CTVET Survey data, 2025.

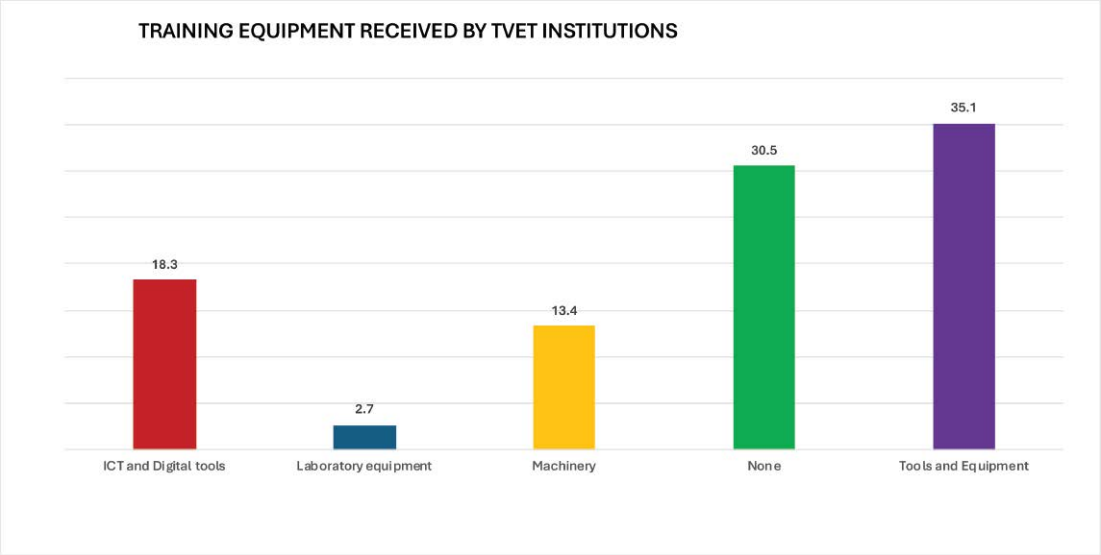
The findings reveal distinct yet complementary training needs for elective and core facilitators. For elective facilitators, the most prominent need is industry-specific training (19.3%), followed by technology integration (15.2%) and industry partnerships and networking (14.7%), indicating a strong demand for practical, industry-aligned competencies. By contrast, core facilitators place the highest emphasis on technology integration (19.8%), pedagogical skills (14.5%), and industry partnerships and networking (12.8%), reflecting a focus on teaching effectiveness and modern instructional approaches. Across both groups, there is moderate demand for mentoring and coaching, soft skills training, and assessment techniques, while classroom management and communication skills also remain relevant areas for capacity development. Overall, the results suggest that while elective facilitators prioritise technical and industry-related skills, core facilitators emphasise pedagogy and instructional delivery, with technology integration emerging as a critical cross-cutting training need for both groups.

4.10.1. Equipment

Training equipment is a key enabler of effective TVET delivery, supporting hands-on learning and the development of industry-relevant skills. This section examines the availability and adequacy of training equipment in TVET institutions. Access to equipment remains uneven. Fewer than half (44.8%) of institutions report receiving training equipment, most of which consists of basic tools, while laboratory equipment is less widely available.

Access to adequate and modern training equipment is fundamental to delivering quality TVET, particularly in competency-based training systems that rely heavily on practical, hands-on learning. The type and availability of equipment institutions receive directly influence the relevance of training, the quality of skill acquisition, and graduates' preparedness for the labour market. The figure below presents the distribution of equipment received by TVET institutions, categorised into tools and equipment, ICT and digital tools, machinery, laboratory equipment, and institutions that have received no equipment. It highlights the proportion of institutions benefiting from each category of equipment support.

Figure 35: Training equipment received by TVET institutions



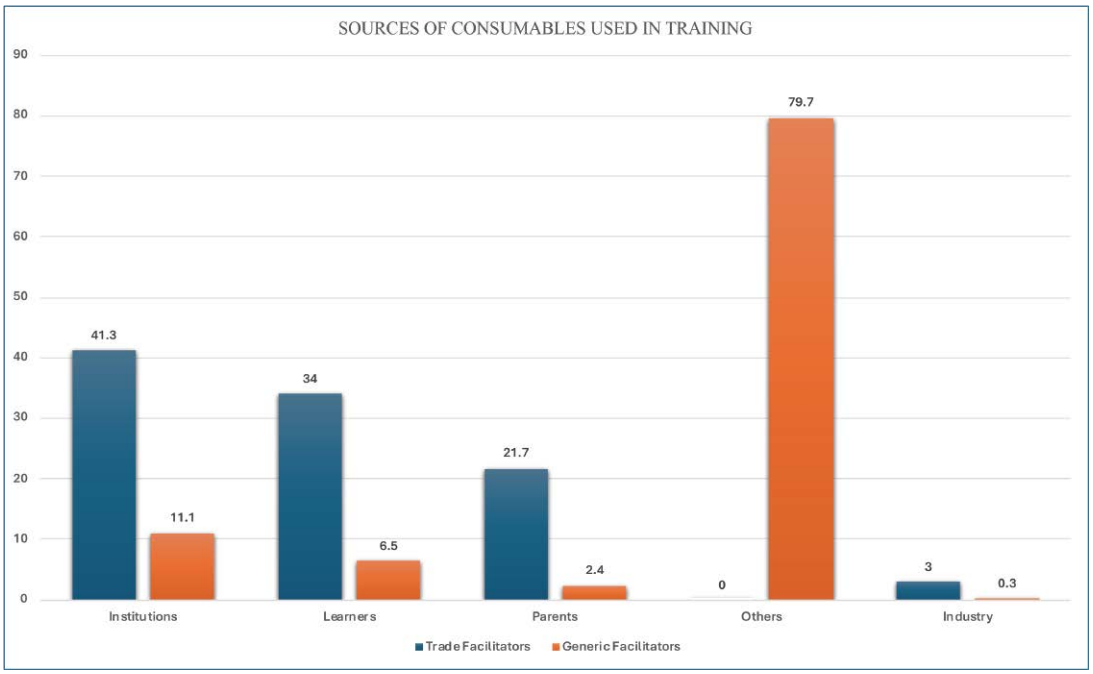
Source: CTVET Survey data, 2025.

The findings indicate that tools and equipment constitute the largest category of support received, accounting for 35.1%, with a significant proportion (30.5%) of institutions reporting no equipment received, highlighting substantial gaps in resource provision. ICT and digital tools account for 18.3%, suggesting moderate progress towards digital integration in TVET delivery. Machinery represents 13.4%, indicating limited access to advanced or industry-grade equipment necessary for specialised training, while laboratory equipment is the least received category at 2.7%, pointing to critical shortages in science-based and technical training resources. Overall, the results suggest that although basic tools are relatively more available, there are significant deficits in advanced, digital, and laboratory equipment, which are essential for delivering high-quality, industry-relevant training.

Sources of Consumables

Consumables such as raw materials and supplies are essential for effective practical training in TVET, particularly within competency-based training systems. The availability of these materials directly affect the quality of hands-on learning and learners' ability to acquire industry-relevant skills. The figure below shows the consumable sources and compares responses from trade and generic facilitators. The sources include institutions, learners, parents, industry, and other unspecified sources, highlighting the extent to which responsibility for providing consumables is shared among stakeholders.

Figure 36 Sources of consumables used in training



Source: CTVET Survey data, 2025.

The findings indicate that institutions are the primary source of consumables, accounting for 41.3% among trade facilitators and 11.1% among generic facilitators, with significant contributions from learners (34%) and parents (21.7%) as reported by trade facilitators. This suggests a heavy reliance on institutional provision and cost-sharing with learners and families. In contrast, responses from generic facilitators show a dominant reliance on other sources (79.7%), indicating variability and possible inconsistencies in sourcing mechanisms. Notably, industry contribution is minimal, accounting for only 3% (trade facilitators) and 0.3% (generic facilitators), highlighting weak industry support for training materials. Overall, the results suggest that consumable provision in TVET is largely institution- and learner-driven, with limited structured support from industry and external partners, raising concerns about sustainability, equity, and the quality of practical training.

Beyond the availability of training equipment, ensuring the safe use of tools and machinery is critical to effective practical training.

4.11. SAFETY

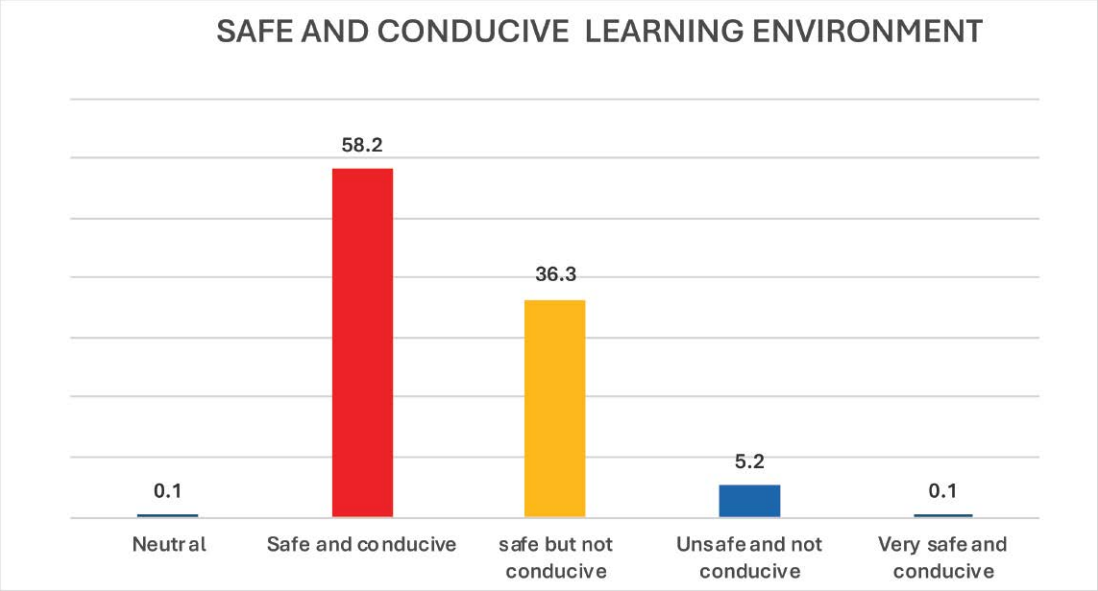
Safety is a fundamental requirement in TVET, particularly in practical training environments involving tools and machinery. This section assesses the application of safety measures in workshops and their implications for learner protection, quality assurance, and training effectiveness.

About three-quarters (76.7%) of facilitators report that safety measures and equipment are used during practical training. However, nearly one in four indicate that these measures are not consistently applied, which may place learners and staff at increased risk if mitigation measures are not taken. Despite this, learners generally perceive their training environments as safe and conducive to learning.

Safe and Conducive Learning Environment

A safe and conducive learning environment is fundamental to delivering quality TVET, as it directly affects learners' well-being, engagement, and the effectiveness of practical training. Safety, comfort, and the overall suitability of the learning environment are particularly important in TVET settings, where learners interact with equipment, tools, and workshop environments. The figure below summarises responses on the safety and conduciveness of the learning environment, categorised as safe and conducive, safe but not conducive, unsafe and not conducive, very safe and conducive, and neutral. It reflects the perceived quality of the learning environment across TVET institutions.

Figure 37: Safe and Conducive Learning Environment



Source: CTVET Survey data, 2025.

The findings indicate that most respondents (58.2%) perceive the learning environment as safe and conducive, suggesting that many TVET institutions provide acceptable conditions for teaching and learning. However, a significant proportion (36.3%) report that the environment is safe but not conducive, indicating that while safety measures may be in place, other factors such as infrastructure, comfort, or learning conditions are inadequate. A smaller proportion (5.2%) considers the environment unsafe and not conducive, highlighting critical deficiencies in some institutions. Very few responses are recorded for very safe and conducive (0.1%) and neutral (0.1%), suggesting limited instances of optimal or indifferent conditions. Overall, the results reveal that although safety is generally maintained, there are notable gaps in ensuring that learning environments are fully conducive to effective TVET delivery, pointing to the need for improvements in infrastructure, facilities, and overall learning conditions.

Additionally, more than one-third (36.3%) report having experienced or witnessed an injury during practical training. Learners identify improved maintenance of workshops and classrooms, enhanced safety measures and better lighting and ventilation as key priorities for improving safety.

While safety practices are essential for protecting learners and ensuring secure training environments, the overall effectiveness of TVET delivery also depends on the extent to which learners actively participate in training programmes. Attendance patterns and learner experiences offer important insights into the accessibility, engagement, and responsiveness of the TVET system. The following section, therefore, examines learner attendance, participation, and experiences, as well as the factors that influence their engagement in training activities.

4.12. ROLE OF PTA/SMCS IN QUALITY TVET DELIVERY

Parent–Teacher Associations (PTAs) and School Management Committees (SMCs) are key stakeholders in the governance of TVET institutions. As community-based oversight bodies, they play an important role in supporting institutional management, promoting accountability, and enhancing the overall quality of training delivery. Their involvement bridges the gap between institutions, learners, parents, and the wider community, thereby strengthening participatory governance and fostering a sense of shared responsibility for educational outcomes.

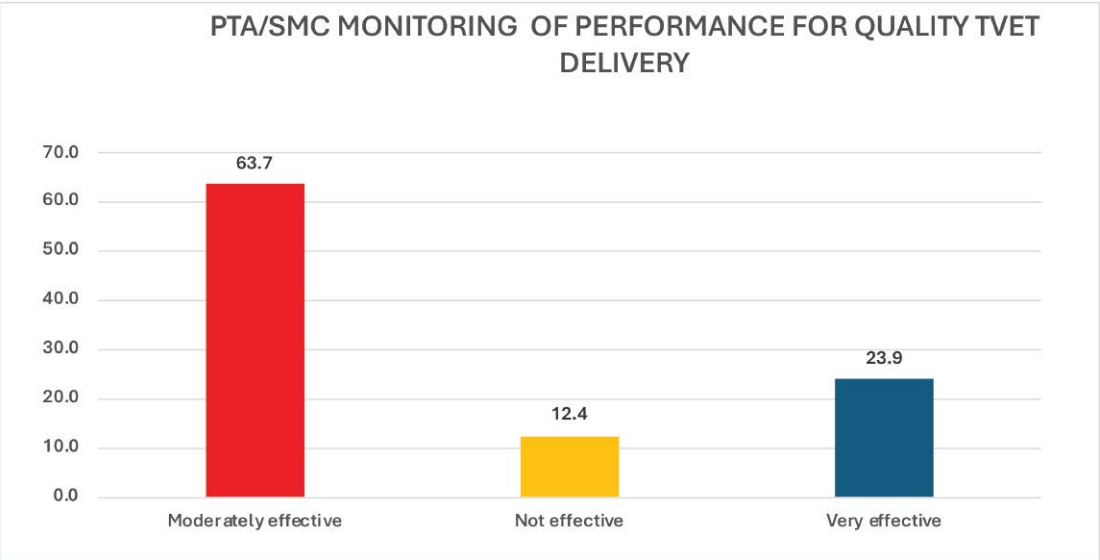
In the context of quality TVET delivery, PTAs and SMCs contribute to a range of critical areas, including monitoring institutional performance, supporting infrastructure development, mobilising resources, promoting learner welfare, and facilitating linkages with local stakeholders. Their engagement is particularly important for complementing government efforts, especially in resource-constrained environments, where community support can significantly enhance institutional capacity.

However, the effectiveness of PTAs and SMCs varies across institutions, influenced by factors such as financial capacity, leadership, awareness of TVET systems, and the availability of structured frameworks to guide their roles. This section examines the contributions, challenges, and effectiveness of PTAs and SMCs in supporting quality TVET delivery, highlighting their role in governance, learner support, accountability, and institutional improvement.

PTA/SMC Monitoring of Performance

The effectiveness of monitoring systems is central to quality TVET delivery. While TVET institutions demonstrate a strong foundation in supervision and performance tracking, the system requires a shift towards integrated, data-driven, and standardised monitoring frameworks. Strengthening these systems will be critical to improving learning outcomes, enhancing institutional accountability, and ensuring that TVET contributes effectively to skills development and national economic transformation. The figure below illustrates the perceived effectiveness of PTA/SMC involvement in monitoring performance, categorised as very effective, moderately effective, or not effective. It reflects the extent to which these governance bodies actively assess performance and provide feedback to support quality improvement.

Figure 38: PTA/SMC Monitoring of Performance for Quality TVET Delivery



Source: CTVET Survey data, 2025.

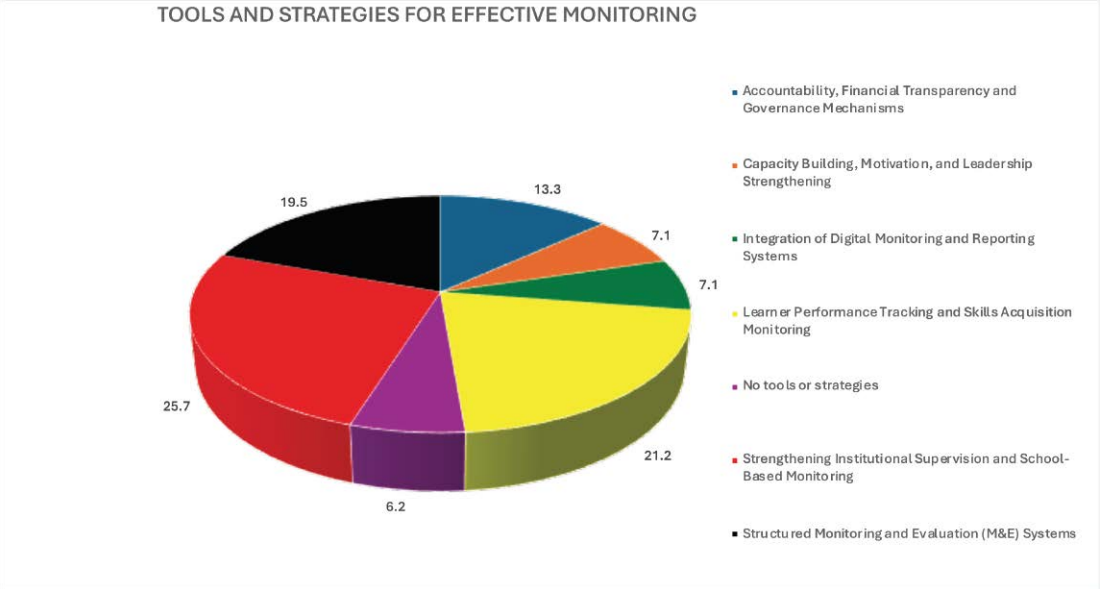
The findings show that PTAs and SMCs play varying roles in monitoring the performance of facilitators and administrators in TVET institutions. Most respondents (63.7%) rate their involvement as moderately effective, indicating active participation but largely informal processes and a lack of structured assessment tools. A smaller proportion (23.9%) consider them very effective,

eflecting institutions where regular performance assessment and feedback contribute to stronger accountability and improved teaching quality. However, 12.4% view them as ineffective, suggesting that, in some cases, PTAs and SMCs have little or no role in performance evaluation. Overall, this highlights the need to strengthen and formalise governance mechanisms to enhance the quality of TVET delivery.

4.13. TOOLS AND STRATEGIES FOR EFFECTIVE MONITORING

The effectiveness of monitoring systems is central to ensuring quality TVET delivery. While TVET institutions in Ghana demonstrate a strong foundation in supervision and performance tracking, there is a clear need to move towards more integrated, data-driven, and standardised monitoring frameworks. Strengthening these systems will be essential to improving learning outcomes, enhancing institutional accountability, and ensuring that TVET contributes effectively to skills development and national economic transformation. The graph below illustrates the distribution of tools and strategies used for effective monitoring in TVET institutions, based on responses from PTAs and SMCs. These strategies include accountability mechanisms, capacity building, digital monitoring systems, learner performance tracking, institutional supervision, and structured Monitoring and Evaluation (M&E) systems, highlighting the relative prominence of each approach in supporting governance, quality assurance, and performance monitoring across the TVET system.

Figure 39: Tools and Strategies for Effective Monitoring



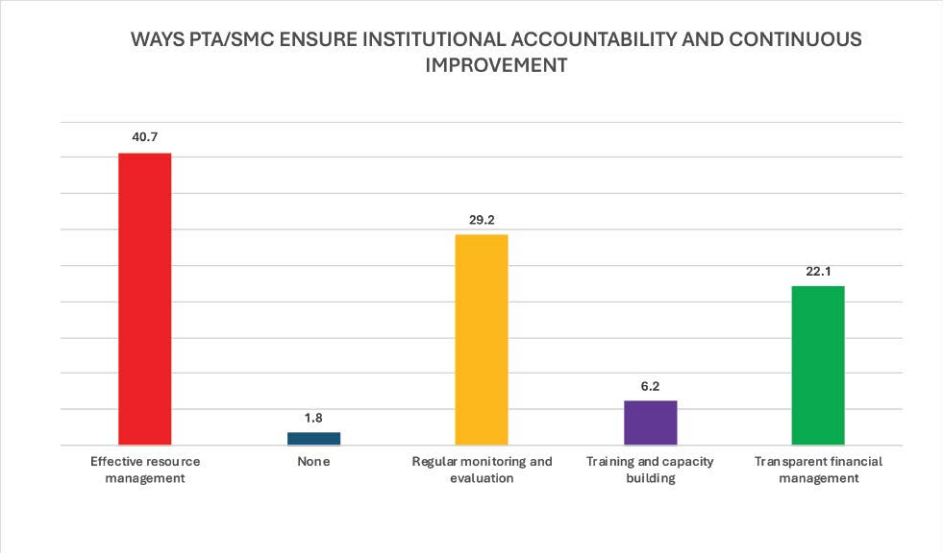
Source: CTVET Survey data, 2025.

The findings show that strengthening institutional supervision and school-level oversight is the most used monitoring strategy, accounting for 25.7% of responses. This is followed by learner performance tracking and skills acquisition monitoring at 21.2%, indicating a strong focus on assessing training outcomes. Structured Monitoring and Evaluation (M&E) systems account for 19.5%, indicating moderate adoption of formalised monitoring frameworks. Accountability mechanisms, including financial transparency, account for 13.3%, highlighting efforts to promote governance and responsible resource use. Meanwhile, capacity building, motivation, leadership development, and digital monitoring and reporting systems each account for 7.1%, suggesting limited integration of these strategies. Notably, 6.2% of respondents report that no formal monitoring tools are in place, indicating gaps in institutional monitoring practices within the TVET system.

4.14. ACCOUNTABILITY AND CONTINUOUS IMPROVEMENT

Effective accountability and continuous improvement are key drivers of quality TVET delivery, particularly by ensuring transparency and fostering institutional improvement. PTAs and SMCs play an important role in strengthening governance at the institutional level by supporting oversight, monitoring performance, and promoting responsible resource utilisation. The next figure examines how these bodies contribute to accountability and continuous improvement within TVET institutions.

Figure 40: Ways PTAs/SMCs Ensure Institutional Accountability and Continuous Improvement



Source: CTVET Survey data, 2025.

The findings indicate that effective resource management is the most prominent mechanism used by PTAs/SMCs, accounting for 40.7% of responses and suggesting a strong focus on overseeing the utilisation of institutional resources. This is followed by regular monitoring and evaluation at 29.2%, reflecting moderate engagement in tracking institutional performance and ensuring continuous improvement. Transparent financial management accounts for 22.1%, highlighting efforts to promote accountability and openness in financial practices. However, training and capacity building is relatively low at 6.2%, indicating limited investment in strengthening the capabilities of PTA/SMC members. A very small proportion (1.8%) reports that no accountability mechanisms are in place. Overall, the results suggest that while PTAs and SMCs are actively engaged in certain aspects of governance, particularly resource oversight, their role in capacity development and structured performance improvement remains limited.

The findings have several implications for the quality of TVET, including strengthened accountability in resource utilisation, which supports efficient institutional management; moderate emphasis on monitoring and evaluation, which contributes to performance tracking but requires further strengthening; limited capacity-building efforts, which may constrain the effectiveness and sustainability of PTA/SMC interventions; and potential gaps in continuous improvement systems, due to insufficient investment in structured governance practices. Overall, while PTAs and SMCs contribute positively to accountability in TVET institutions, there remains a need to enhance their capacity, formalise their roles, and strengthen monitoring systems to ensure consistent, high-quality TVET delivery across Ghana.

4.15 WORKPLACE EXPERIENCE LEARNING (WEL)

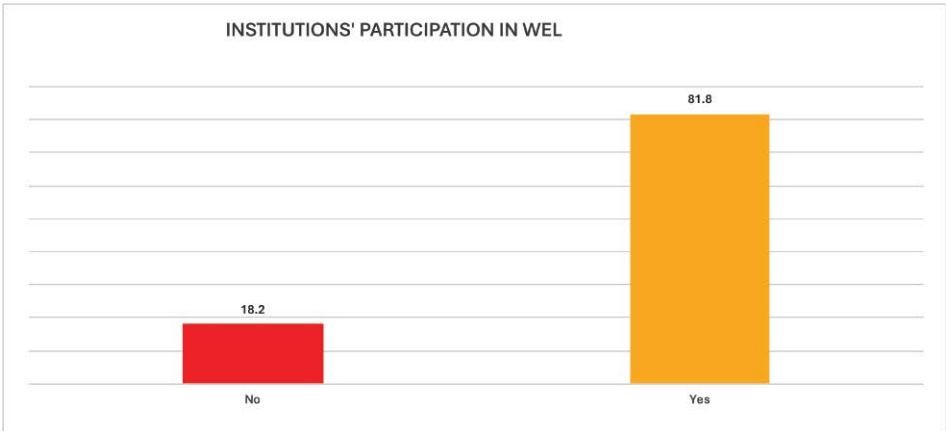
Workplace Experience Learning (WEL) is a core component of quality TVET delivery, designed to bridge the gap between theoretical instruction and practical application in real-world work environments. It refers to structured learning in industry settings, such as industrial attachments, internships, and apprenticeships, where learners are exposed to real-world workplace processes, technologies, and professional practices. WEL aligns with the competency-based training (CBT) approach and the NTVETQF, ensuring that learners acquire not only technical skills but also the workplace behaviours, attitudes, and standards required by employers.

In the context of quality TVET, WEL plays a critical role in enhancing employability, productivity, and industry relevance. It enables learners to gain hands-on experience with modern equipment, understand workplace safety and operational procedures, and develop soft skills such as teamwork, communication, and problem-solving. Additionally, WEL strengthens industry and institution linkages, enabling employers to contribute to training, assessment, and curriculum relevance. However, the effectiveness of WEL depends on factors such as the availability of placement opportunities, the quality of supervision, alignment with training programmes, and the presence of structured monitoring and assessment mechanisms. When implemented effectively, WEL significantly improves learning outcomes, facilitates smoother transitions from institutions to the workforce, and ensures that TVET graduates are job-ready and responsive to labour market demands.

WEL Placement

WEL is a critical pillar of effective and efficient quality TVET delivery, providing learners with practical exposure and industry-relevant competencies. The ability of institutions to secure WEL and internship placements reflects the strength of industry linkages, institutional capacity, and the training system's responsiveness to labour market needs. The figure below presents TVET principals' responses on their institutions' ability to secure WEL opportunities for learners.

Figure 41: Institutions' Participation in WEL



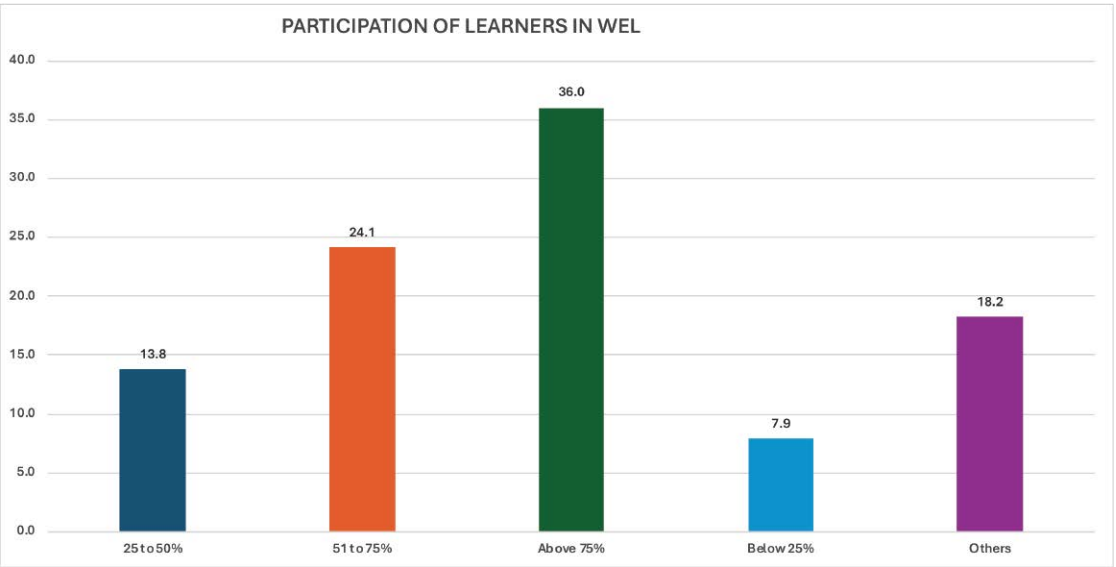
Source: CTVET Survey data, 2025.

The findings reveal that a significant majority of principals (81.8%) report that their institutions can secure WEL or internship opportunities for learners, indicating generally strong engagement with industry and recognition of the importance of practical training within the TVET system. However, 18.2% of principals report being unable to secure such opportunities, indicating persistent gaps in industry linkages and access to workplace learning environments. The high proportion of institutions facilitating WEL suggests progress in integrating practical experience into training delivery, but nearly one-fifth of institutions lack access to placements, highlighting uneven implementation and potential inequities in learners' exposure to industry. There is a need to strengthen structured partnerships with industry, expand placement opportunities, and institutionalise WEL frameworks to ensure that all learners benefit from practical, workplace training as a core component of quality TVET delivery.

Participation in WEL

Participation in WEL is a critical indicator of the effectiveness of TVET delivery, as it reflects the extent to which learners are exposed to real-world work environments and industry practices. High participation rates are essential to ensure that CBT translates into practical skills, employability, and smoother transitions from industry to work. The figure shows the rate of learner participation in WEL, categorised as below 25%, 25–50%, 51–75%, above 75%, and other responses, reflecting varying levels of WEL engagement across institutions.

Figure 42: Participation of Learners in WEL



Source: CTVET Survey data, 2025.

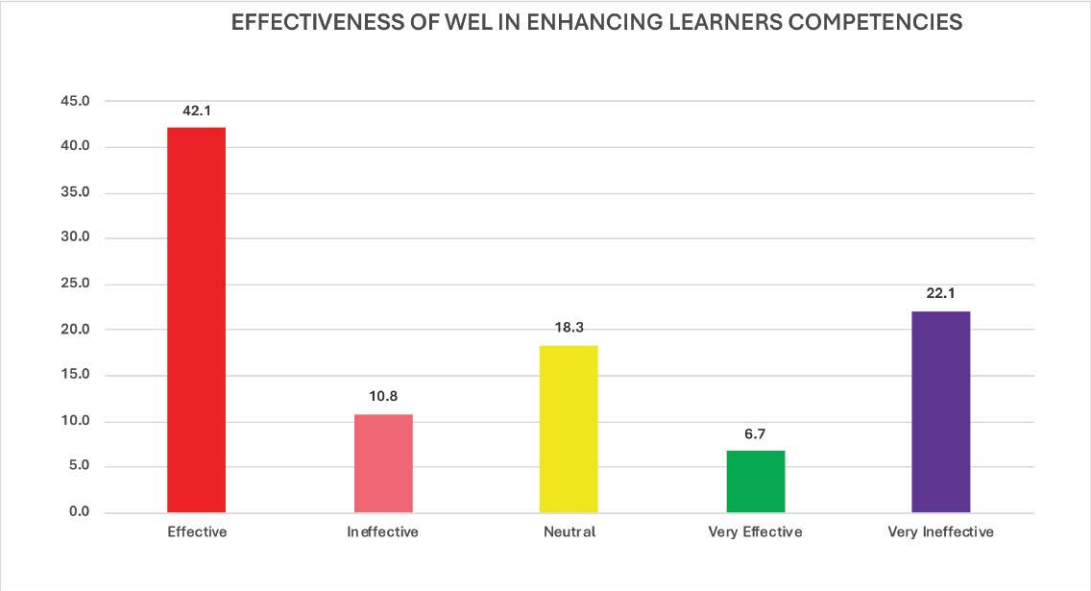
The findings indicate that a significant proportion of institutions (36.0%) report that over 75% of their learners participate in WEL, suggesting strong integration of workplace learning within these institutions. This is followed by 24.1% of institutions with participation rates between 51% and 75%, and 13.8% reporting participation rates between 25% and 50%, indicating moderate engagement. However, 7.9% of institutions report participation below 25%, indicating limited access to WEL opportunities for some learners, while 18.2% fall into other categories, possibly reflecting irregular or unstructured participation patterns. This demonstrates that while a considerable number of institutions have successfully mainstreamed WEL, participation levels remain uneven across the system, reflecting disparities in access to industry placements. There is a need to strengthen and expand industry partnerships and ensure equitable access to WEL opportunities to enhance the quality and relevance of TVET outcomes.

In another development, facilitators' perspectives indicated that 90.5% of learners participated in WEL, whereas principals' perspectives showed varying levels of participation across institutions, with some reporting participation below 50% or even below 25%. It is evident that WEL implementation is not uniform across the system, highlighting a contrast between programme-level reporting by facilitators, who observe high participation in their specific classes or trades, and institution-wide reporting by principals, who capture disparities across departments and programmes. Together, these perspectives indicate that while WEL is broadly embedded in TVET delivery, there are gaps in equitable access and full institutional coverage. As a result, there is a need to strengthen industry partnerships and standardise WEL implementation across all institutions.

Effectiveness of WEL

Figure 43 illustrates the effectiveness of WEL in acquiring competencies which is very critical to the overall progress of learners in their quest to be part of a national and global workforce.

Figure 43: Effectiveness of WEL in Enhancing Learners Competencies



Source: CTVET Survey data, 2025.

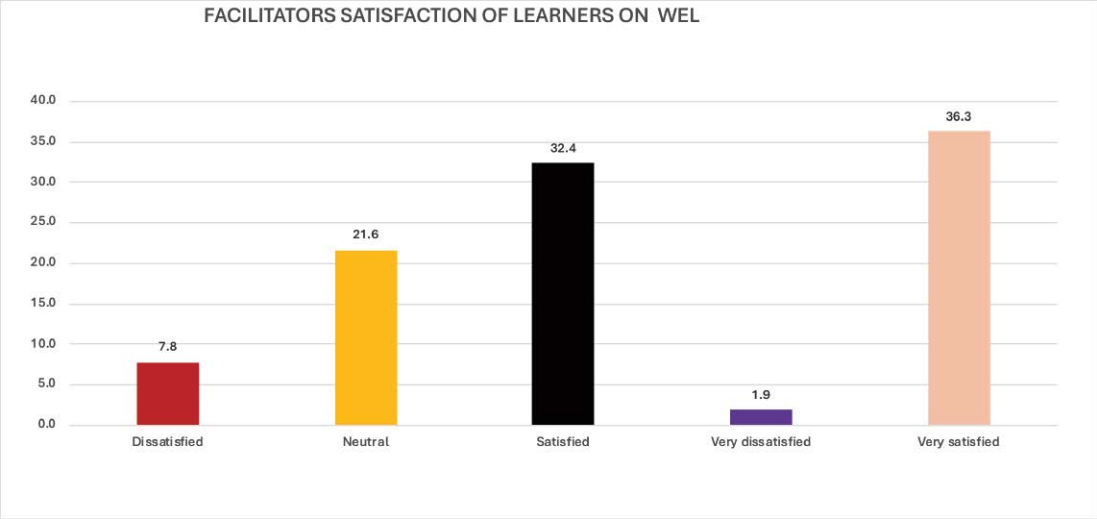
The findings indicate that the largest share of respondents (42.1%) consider WEL to be effective in enhancing learners' competencies, while a smaller share (6.7%) rates it as very effective. This is an indication that close to 50% of the respondents appreciate the efficacy of WEL.

However, a notable share of respondents hold less favourable views. 22.1% rate WEL as very ineffective and 10.8% as ineffective. Thus, 32.9% of the respondents do not see the value of WEL, while 18.3% remain neutral. These results suggest that although WEL is widely recognised as a critical component of quality TVET, its effectiveness is not consistently realised across all institutions. The relatively low proportion of "very effective" responses, coupled with the significant share of negative perceptions, points to variations in implementation quality, including the relevance of placements, supervision, alignment with training programmes, and monitoring mechanisms.

Facilitators Satisfaction with WEL

Facilitators play a critical role in implementing Workplace Experience Learning (WEL) and are well placed to assess the adequacy and quality of learners' industry exposure. Their satisfaction is an important indicator of how effectively TVET institutions facilitate industry engagement, work-based learning, and practical skills development. The figure shows facilitators' satisfaction with learners' participation in WEL, categorised as very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied. These categories reflect varying degrees of access to industry opportunities, ranging from excellent and adequate exposure to limited or no opportunities for work-based learning.

Figure 44: Facilitators Satisfaction of Learners on WEL



Source: CTVET Survey data, 2025.

The findings show that a substantial proportion of facilitators hold positive views of WEL participation, with 36.3% very satisfied (reflecting excellent opportunities for industry exposure) and 32.4% satisfied (indicating adequate opportunities for work-based learning). This suggests that, in many institutions, WEL is functioning effectively as a key component of quality TVET delivery. However, 21.6% of facilitators remain neutral, indicating that, while opportunities exist, they are not consistently available or systematically structured. Additionally, 7.8% of facilitators report being dissatisfied, and 1.9% very dissatisfied, indicating limited or non-existent opportunities for some learners to engage in industry-based training. In the context of quality TVET, these findings highlight that, although most institutions provide meaningful WEL opportunities, inconsistencies in access, regularity, and the quality of industry engagement persist.

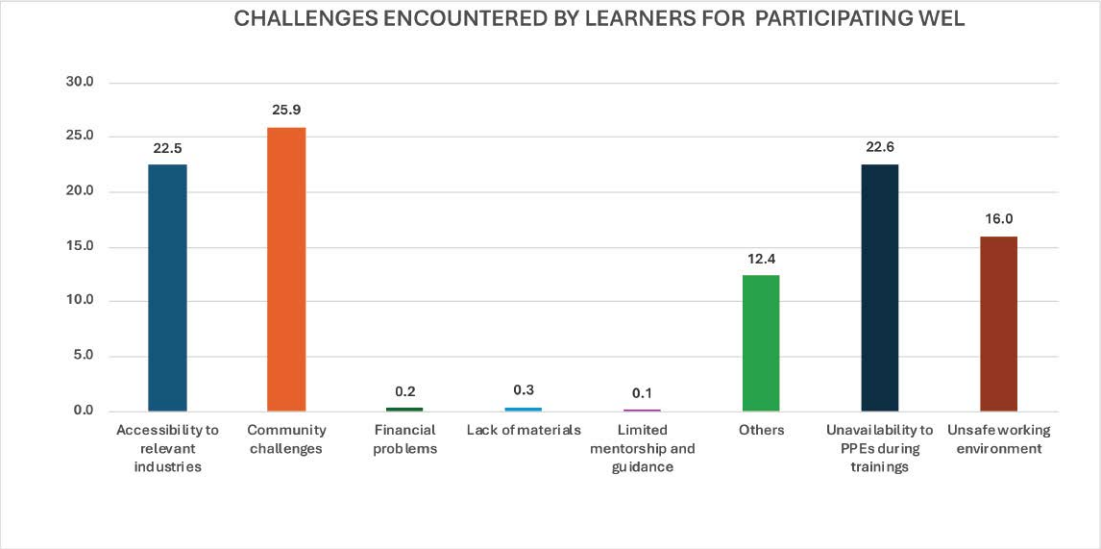
Enhancing Workplace Experience Learning (WEL)

Workplace Experience Learning (WEL) equips TVET learners with practical skills and employability competencies but faces challenges such as limited placements, weak industry linkages, and poor supervision. Key improvements include strengthening industry institution collaboration through formal partnerships and training plans, updating curricula with labour market input and emerging technologies, enhancing supervision and mentorship, expanding placements across industries and virtual platforms, providing pre-placement orientation on employability and safety, leveraging technology for simulations and virtual internships, implementing monitoring and evaluation systems, and supporting policies with employer incentives and quality standards.

4.16 CHALLENGES ENCOUNTERED BY LEARNERS FOR PARTICIPATING IN WEL

WEL is essential for ensuring quality TVET delivery; however, its effectiveness depends on the extent to which learners can access safe, relevant, and well-supported industry placements. Understanding the challenges learners face in participating in WEL is critical for identifying systemic gaps that may undermine competency development, equity, and employability outcomes. The figure illustrates the challenges learners encounter during WEL or internship placements. These include accessibility to relevant industries, community-related challenges, financial constraints, lack of materials, limited mentorship and guidance, unavailability of personal protective equipment (PPEs), unsafe working environments, and other related factors.

Figure 45: Challenges encountered by Learners for participating in WEL



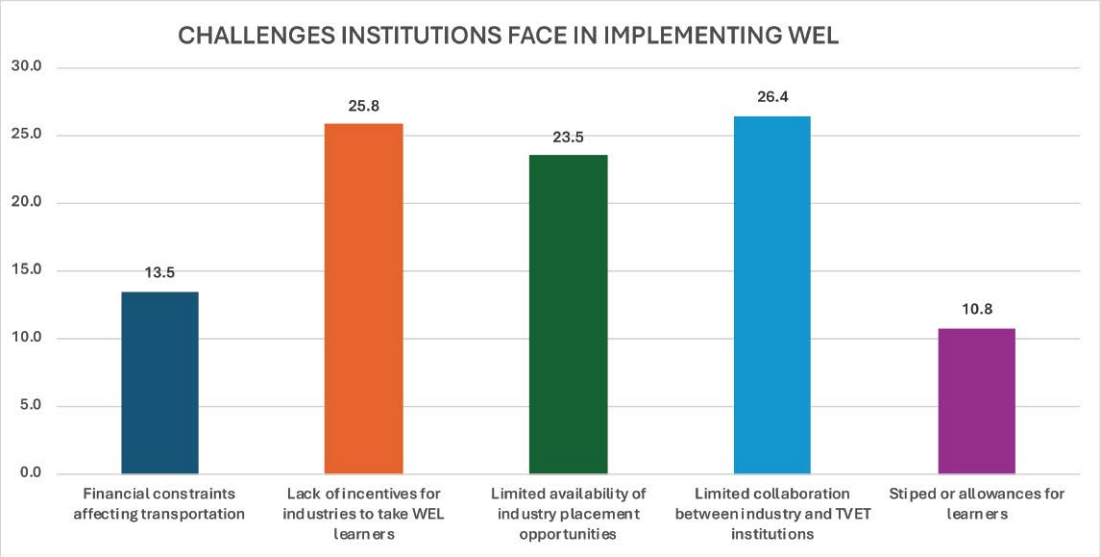
Source: CTVET Survey data, 2025.

The findings reveal that community-related challenges (25.9%) and limited access to relevant industries (22.5%) are the most significant barriers to learners' participation in WEL, closely followed by the unavailability of PPE during training (22.6%) and unsafe working environments (16.0%). Additionally, 12.4% of respondents identified other challenges, indicating diverse contextual issues that may vary across institutions and locations. By contrast, relatively small proportions cited financial problems (0.2%), lack of materials (0.3%), and limited mentorship and guidance (0.1%), suggesting that structural and environmental factors outweigh individual or instructional constraints. In the context of quality TVET, the findings indicate that although WEL is widely implemented, its effectiveness is undermined by limited industry access, safety concerns, and community-level barriers, which affect the quality and consistency of learners' experiences. Addressing these challenges will require strengthening industry partnerships, enforcing occupational safety standards, improving logistical and institutional support systems, and ensuring equitable access to safe and relevant workplace environments, thereby enhancing the quality and impact of TVET delivery.

Challenges Institutions Face in Implementing WEL

Effective implementation of WEL is fundamental to high-quality TVET delivery, as it ensures learners acquire practical, industry-relevant competencies. However, the ability of institutions to facilitate WEL/Internships depends on the strength of industry linkages, the availability of resources, and supportive policy and operational frameworks. The figure illustrates the institutional-level challenges affecting the implementation of WEL/Internships, including financial constraints on transport, a lack of incentives for industries to accept learners, limited placement opportunities, weak collaboration between industry and TVET institutions, and inadequate stipends or allowances for learners

Figure 46: Challenges institutions face in implementing WEL

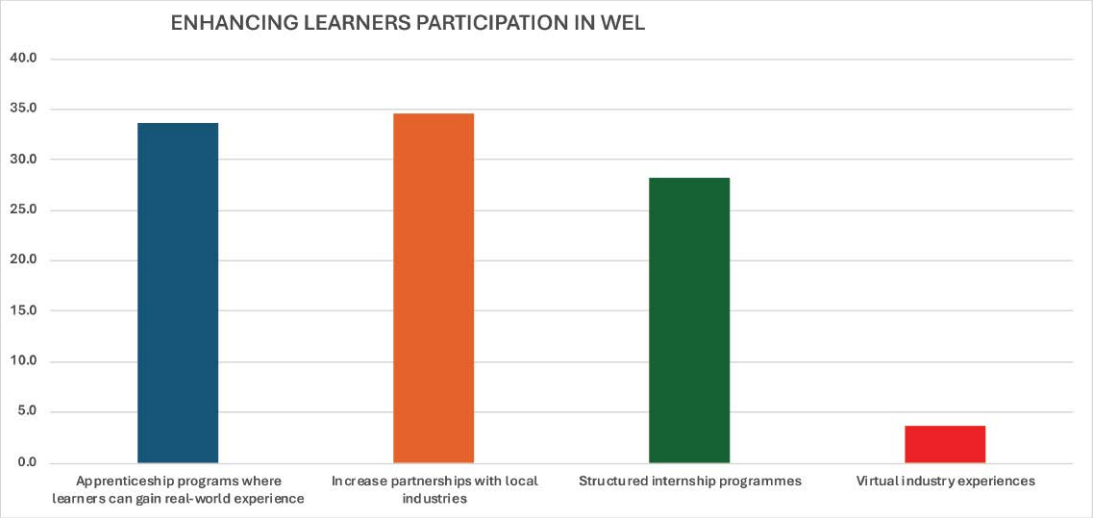


Source: CTVET Survey data, 2025.

The analysis indicates that limited collaboration between industry and TVET institutions (26.4%) and a lack of incentives for industries to take WEL/internship learners (25.8%) are the most significant challenges, closely followed by the limited availability of industry placement opportunities (23.5%). These results reveal systemic weaknesses in industry engagement and partnership frameworks that are critical to successful WEL/internship implementation. Additionally, financial constraints affecting transport (13.5%) and inadequate stipends or allowances for learners (10.8%) further constrain participation, particularly for learners from disadvantaged backgrounds. From a quality TVET perspective, these challenges indicate that WEL is recognised as a key component of training; its effectiveness is undermined by structural, financial, and partnership-related barriers. Addressing these issues will require strengthening mechanisms for industry collaboration, introducing incentive frameworks for employers, expanding placement opportunities, and providing financial support for learners to ensure equitable access and enhance the quality and impact of workplace learning within the TVET system.

Expanding access to WEL is essential to strengthening the quality of TVET delivery, as it ensures that learners acquire practical, industry-relevant competencies. Identifying institutional-level strategies to enhance WEL participation provides critical insight into how gaps in access, relevance, and effectiveness can be addressed. The figure below illustrates the proposed strategies to enhance WEL participation, including increasing partnerships with local industries, strengthening apprenticeship programmes, implementing structured internship programmes, and introducing virtual industry experiences.

Figure 47: Enhancing Learners' Participation in WEL



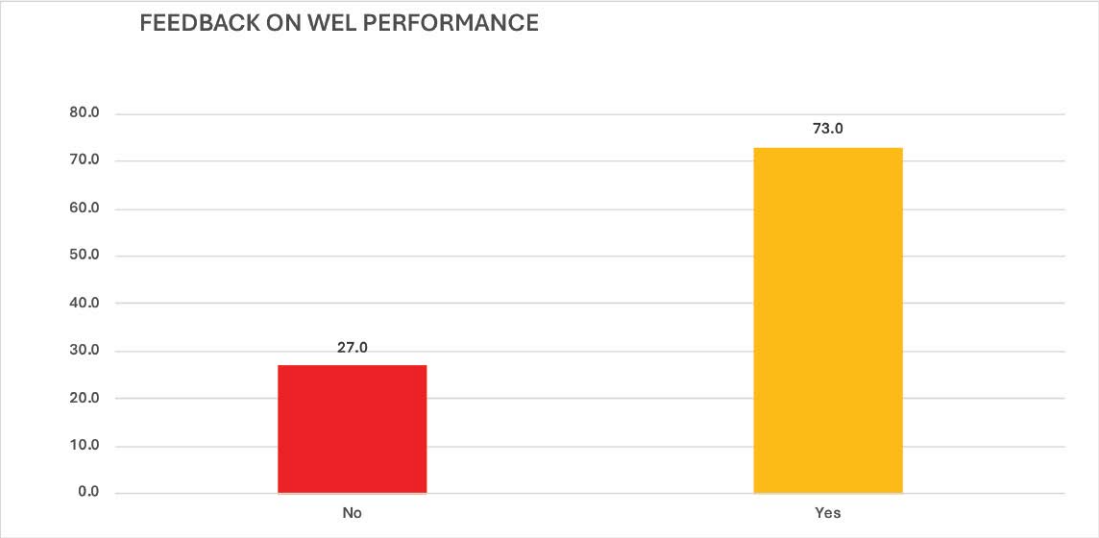
Source: CTVET Survey data, 2025.

The findings indicate that increasing partnerships with local industries (34.4%) is the most frequently cited strategy for enhancing WEL opportunities, followed closely by strengthening apprenticeship programmes (33.5%) and implementing structured internship programmes (28.0%). These results highlight a strong institutional emphasis on deepening industry engagement and formalising work-based learning pathways as key drivers of quality TVET delivery. By contrast, virtual industry experiences (3.6%) attract minimal attention, suggesting limited reliance on digital or alternative models of workplace exposure. From a quality TVET perspective, the findings underscore that improving WEL participation requires systematic, sustained collaboration between institutions and industry, alongside the development of structured, standardised, and scalable internship and apprenticeship frameworks. Strengthening these areas will enhance learners' access to relevant work environments, improve competency acquisition, and ensure that TVET training remains responsive to labour market demands.

4.17 FEEDBACK ON LEARNER PERFORMANCE DURING WEL

Feedback during WEL is a critical component of quality TVET delivery, as it enables continuous assessment, reinforces competency development, and strengthens the link between training and industry expectations. Effective feedback mechanisms ensure that learners receive guidance on their performance, identify areas for improvement, and align their skills with workplace standards. The figure below shows responses indicating whether learners receive feedback on their performance during WEL or an internship, thereby reflecting the presence or absence of structured feedback mechanisms within workplace learning environments.

Figure 48: Feedback on WEL Performance



Source: CTVET Survey data, 2025.

The findings indicate that a substantial majority of respondents (73.0%) report that learners receive feedback on their performance during WEL or internships, suggesting that feedback mechanisms are largely integrated into workplace learning processes. However, a notable proportion (27.0%) reports that learners do not receive feedback, indicating gaps in structured supervision and performance assessment in some placements. In the context of quality TVET, while the high level of feedback provision is a positive indicator of effective learner support and competency development, the absence of feedback for over a quarter of learners raises concerns about inconsistent monitoring, weak supervision frameworks, and missed opportunities for skills improvement. There is a need to institutionalise standardised feedback and assessment mechanisms, strengthen collaboration with industry supervisors, and ensure that all learners receive regular, structured feedback, thereby enhancing learning outcomes and the effectiveness of WEL in the TVET system.

Learner Support System

interventions implemented to enhance learners' academic success, skills acquisition, well-being, and transition to employment or further education. In the context of quality TVET, learner support goes beyond classroom instruction to ensure that learners are fully equipped academically, socially, and professionally to complete their training and succeed in the labour market.

In a quality TVET system, learner support is a critical pillar that complements competency-based training by addressing barriers to learning and promoting inclusive, effective participation. It includes academic support (remedial training, tutoring, access to learning materials), career guidance and counselling (career pathways, job placement, entrepreneurship support), and workplace learning support (WEL coordination, mentorship, supervision). It also encompasses welfare services, such as accommodation, health care, feeding, and psychosocial support, which are essential for maintaining learner engagement and retention.

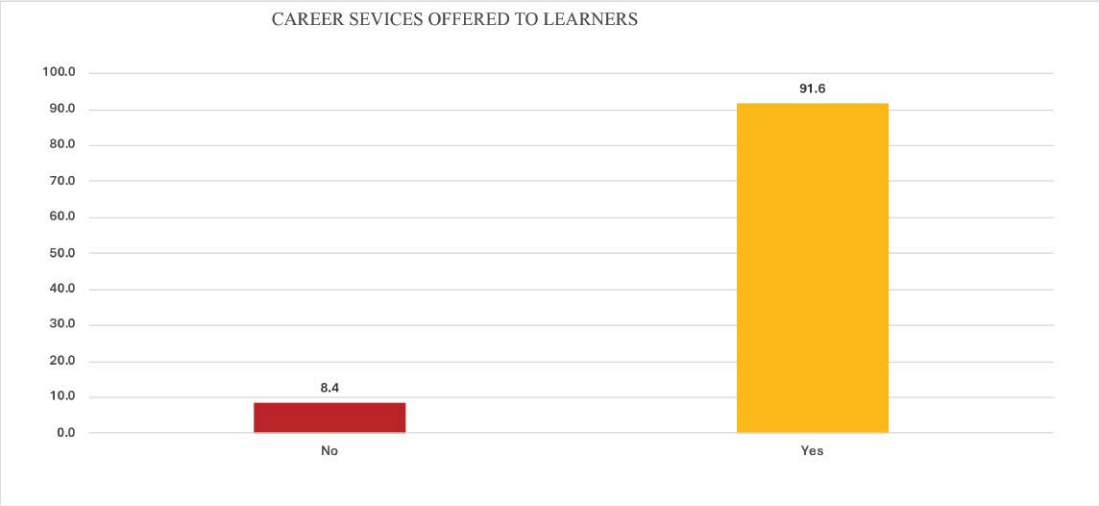
A strong learner support system also promotes equity and inclusion, ensuring that vulnerable groups, including women, persons with disabilities, and disadvantaged learners, have access to appropriate support. Furthermore, it integrates recreational, talent development, and extracurricular activities that contribute to holistic development and to the development of soft skills such as teamwork, leadership, and communication.

From a quality perspective, effective learner support systems improve learning outcomes, increase completion rates, enhance certification performance, and improve employability. They also strengthen the overall TVET ecosystem by ensuring learners are not only technically competent but also work-ready, adaptable, and resilient. Therefore, strengthening learner support systems is essential to achieving a responsive, inclusive, and high-performing TVET system aligned with development goals.

Availability of Career Services offered to Learners

Career services are a critical component of learner support systems in quality TVET delivery, facilitating the transition from training to employment or entrepreneurship. Effective career services, such as guidance and counselling, job placement support, and career planning, ensure that learners are informed about labour market opportunities and equipped to make strategic career decisions. The figure below indicates whether TVET institutions offer career services to learners. It reflects the overall availability of structured career support mechanisms within the TVET system.

Figure 49: Career Services Offered to Learners



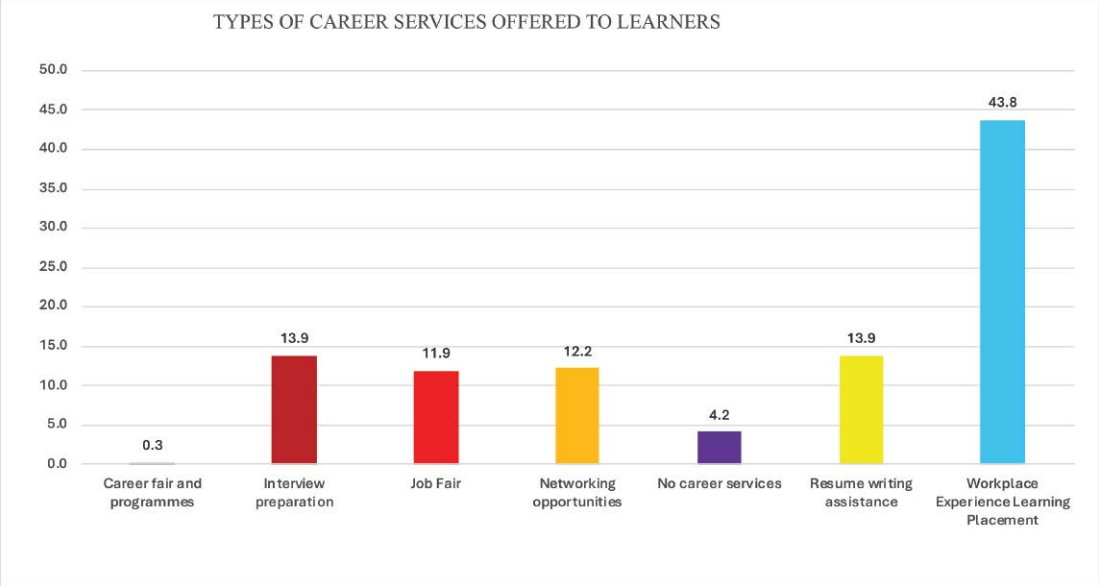
Source: CTVET Survey data, 2025.

The findings show that an overwhelming majority of institutions (91.6%) offer career services to learners, while only 8.4% report no such services. This suggests that career support is widely recognised and largely institutionalised as a key component of TVET delivery. From a quality TVET perspective, this high level of availability is a positive indicator, reflecting a strong commitment to supporting learners' transition into employment, further education, or entrepreneurship. The remaining gap, though relatively small, indicates that some learners may still lack access to structured guidance and support. Moreover, there is a need to ensure that existing career services are comprehensive, well-resourced, and aligned with labour market demands, including effective job placement systems and entrepreneurship support. Strengthening the quality, consistency, and outcomes of these services will be essential to maximise their contribution to employability and TVET system performance.

Types of Career Services Offered to Learners

The effectiveness of learner support systems in TVET depends not only on the availability of career services but also on their range and relevance. Comprehensive career services are essential for enhancing employability by equipping learners with job-search skills, industry exposure, and professional networks. The figure illustrates the career services provided to learners, including WEL placement, interview preparation, resume-writing assistance, networking opportunities, job fairs, career fairs and programmes, and institutions with no career services.

Figure 50: Types of Career Services Offered to Learners



Source: CTVET Survey data, 2025.

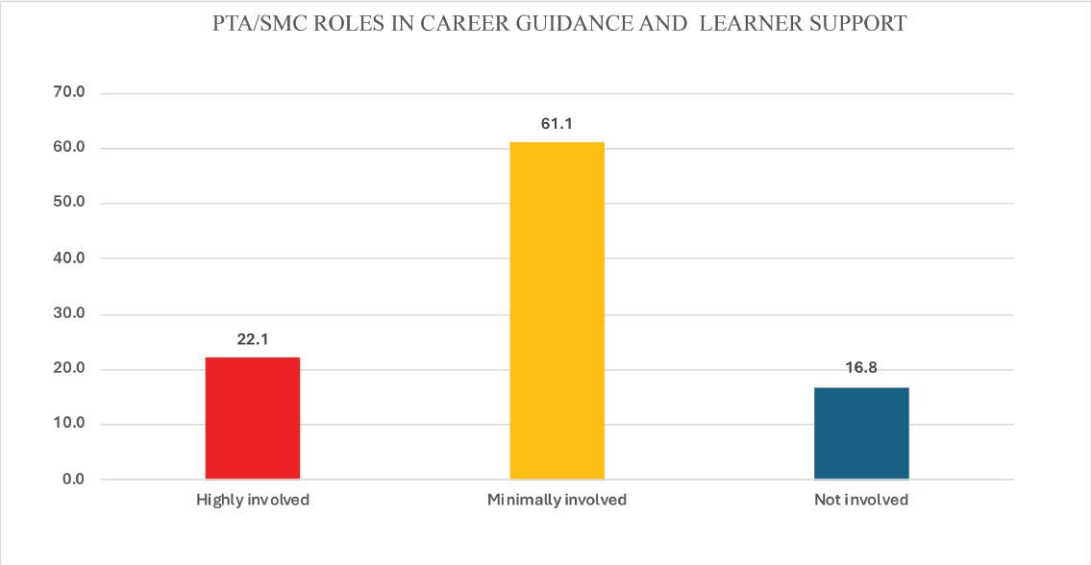
The findings indicate that WEL placement (43.8%) is the most prominent career service, highlighting a strong emphasis on practical, workplace learning as a pathway to employment. Other commonly provided services include interview preparation (13.9%) and resume writing assistance (13.9%), which support learners' job readiness, as well as networking opportunities (12.2%) and job fairs (11.9%), which facilitate connections with potential employers. However, career fairs and programmes are minimally represented (0.3%), and 4.2% of institutions report no career services, indicating gaps in comprehensive career support. From

a quality TVET perspective, while the strong focus on WEL placement is commendable and aligns with CBT principles, the relatively lower emphasis on broader career development services suggests that career support systems may not be fully holistic or integrated. There is a need to strengthen a wider range of career services, including structured career guidance programmes, employer engagement platforms, and continuous professional development support, which will be critical to enhancing learner employability, improving institution-to-work transitions, and ensuring that TVET graduates are well-prepared for diverse career pathways.

PTA/SMC Roles in Career Guidance and Learner Support

PTAs and SMCs are key support structures within TVET institutions, with the potential to influence learner outcomes through career guidance, mentorship, and other services. Their level of involvement is critical to strengthening learner support systems and enhancing employability. The figure illustrates PTA/SMC involvement in career guidance and learner support, categorised as highly involved, minimally involved, or not involved. It reflects the varying levels of engagement of these stakeholder groups in supporting learners' transition into the labour market.

Figure 51: PTA/SMC roles in career guidance and job placements



Source: CTVET Survey data, 2025.

The findings reveal that most institutions (61.1%) indicate that PTAs/SMCs are minimally involved in career guidance and learner support activities, suggesting limited and inconsistent engagement in supporting learners' career development. While 22.1% report that PTAs/SMCs are highly involved in career-related initiatives, such as mentorship and job placement, a notable 16.8% indicate they are not involved at all. In the context of quality TVET, these results highlight a significant underutilisation of PTAs/SMCs as strategic partners in enhancing learner employability. The predominance of minimal involvement suggests missed opportunities to leverage community and stakeholder networks to support career pathways.

CHAPTER 5

LEARNING OUTCOMES, INDUSTRY ENGAGEMENT & EMPLOYABILITY

5.0. INTRODUCTION

This chapter examines the relationship between learning outcomes and employability in Ghana's TVET system, drawing on data from TVET institutions. It assesses how effectively training programmes equip learners with the technical, practical, and transferable skills needed for labour market participation and career progression. The analysis is grounded in the competency-based training approach and the National TVET Qualifications Framework (NTVETQF), which provides structured pathways for skills development, certification, and progression.

5.1. LEARNING OUTCOMES AND CAREER PROGRESSION IN GHANA'S TVET SYSTEM

Learning outcomes are a key measure of TVET's effectiveness, indicating how well learners acquire the knowledge, skills, competencies, and attitudes needed for employment, further education, and lifelong learning. In the context of TVET, learning outcomes extend beyond theoretical understanding to encompass practical, industry-relevant skills that enable graduates to perform effectively in real-world work environments. These outcomes are closely aligned with competency-based training (CBT) principles and are evaluated through standardised certification on the NTVETQF.

The learning outcomes are directly and indirectly linked to the certification issued on the National TVET Qualification Framework. It must be noted that apart from the certificates issued on the NTVETQF, there are other certificates that were being issued before the advent of CBT when TVET was delivered using traditional approaches. The certificates include Diploma, Advanced Craft, Technician I, II, and III. It is worthy to mention that these certificates are still being issued since it's usually pursued by workers in various sectors of the economy.

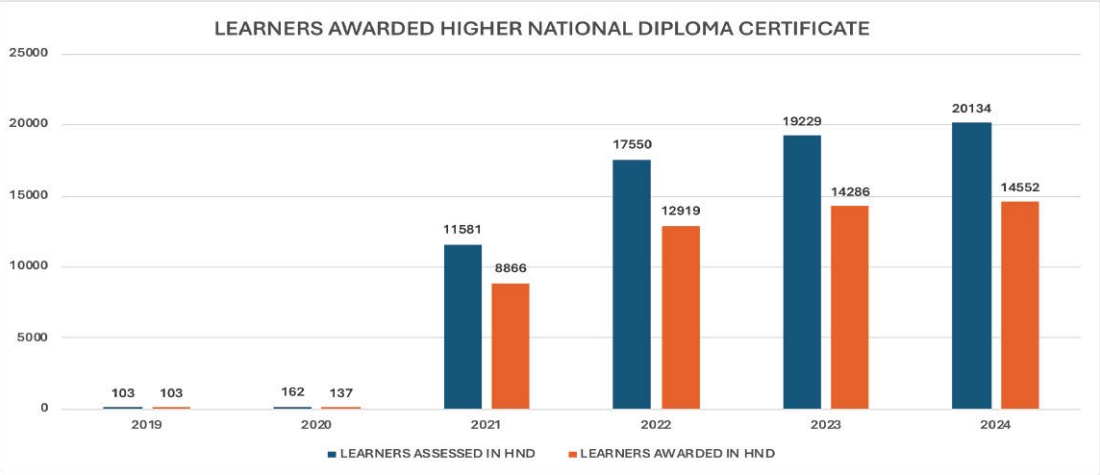
As this section examines trends in learner performance, certification, and progression to assess the extent to which learners acquire the required competencies and move successfully through the system, the narrative on certificates issued will focus on those issued on the NTVETQF. The certificates issued at the National Proficiencies I and II are always related to Apprenticeships, which have been discussed earlier. The National Certificate II, which is level four on the NTVETQF, is issued at the second cycle level where the TVET Institutions operate and function, and then there is the Higher National Diploma (HND), which is offered at the tertiary level.

5.2. HIGHER NATIONAL DIPLOMA

Higher National Diploma (HND) programmes provide advanced technical and professional competencies required for higher-level employment and career progression. As part of the National TVET Qualification Framework (NTVETQF), HND serves as a key pathway linking intermediate and advanced levels of skills development. This section examines trends in the number of learners who sat for HND examinations and those who successfully passed and were awarded HND qualifications over time, offering insights into learner progression, certification outcomes, and the overall effectiveness of training delivery at higher levels within the TVET system.

The graph below shows the total number of graduates and learners awarded a Higher National Diploma (HND) from 2019 to 2024. The blue bar represents the total number of graduates, while the orange bar represents the total number of learners awarded a Higher National Diploma after the examination.

Figure 52: Learners Awarded Higher National Diploma Certificate



Source: CTVET Survey data, 2025.

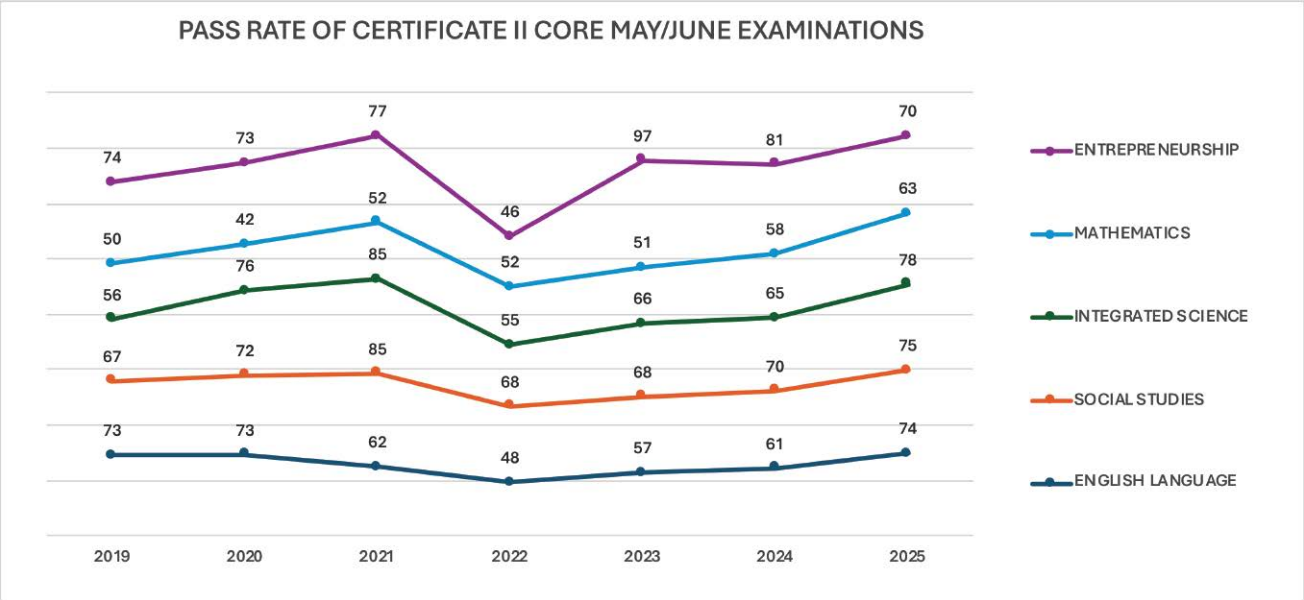
The analysis shows that growth in Higher National Diploma (HND) graduates reflects significant progress in strengthening progression pathways within Ghana's TVET system and in expanding access to advanced technical training. However, the persistent gap between the number of graduates and those successfully awarded qualifications highlights critical challenges in assessment, certification, and learner completion. This gap suggests that while more learners are advancing to higher levels, not all are meeting the required competency standards for certification. Addressing this issue will require targeted interventions to

strengthen assessment systems, quality assurance mechanisms, and learner support structures, ensuring that progression within the NTVETQF translates into successful certification and meaningful skills acquisition for the labour market.

5.3. CERTIFICATE II EXAMINATIONS

Certificate II is positioned at level four (4) of the NTVETQF. This exam takes place twice annually: in May/June and November/December. The Certificate II examination programmes cover core subjects such as English, Mathematics, Social Studies, Integrated Science, and Entrepreneurship, as well as elective subjects. The graph below shows the pass rates for the May/June Certificate II core examination from 2019 to 2025. Each line represents a different core subject within the Certificate II – Mathematics (purple), Integrated Science (green), Social Studies (orange), and English (blue).

Figure 53: Pass Rate of Certificate II Core May/June Examinations (2019 - 2025)

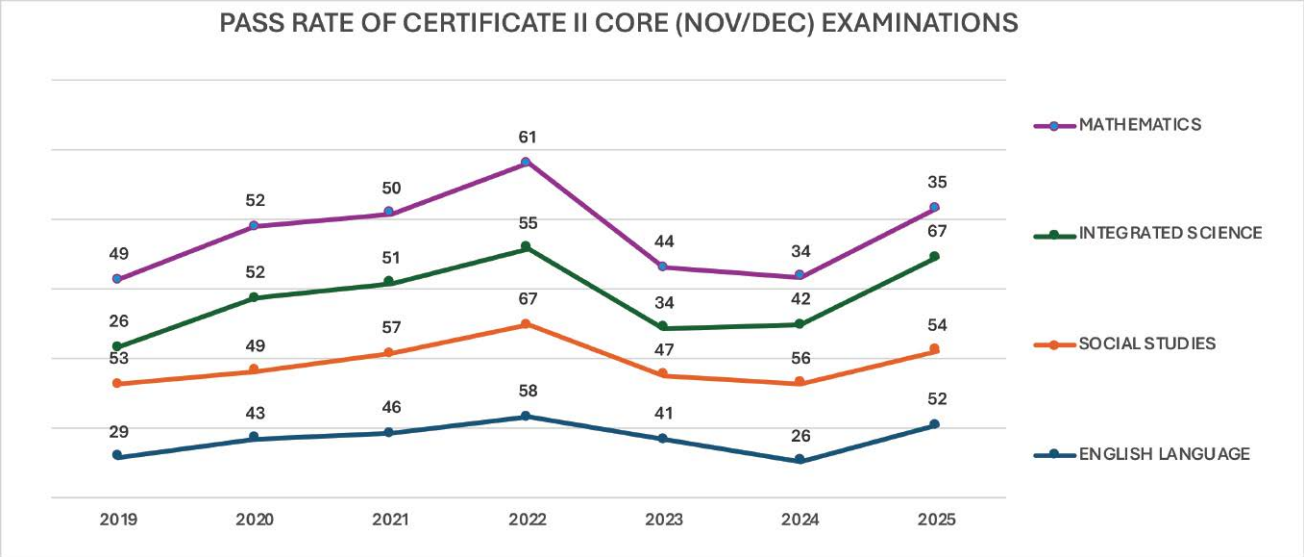


Source: CTVET Survey data, 2025.

The findings indicate that pass rates in Certificate II core subjects improved between 2019 and 2021, declined in 2022, and showed a steady recovery from 2023 to 2025, reflecting both disruptions and subsequent improvements in training delivery.

This graph shows the pass rates for the core subjects of the November/December Certificate II examination from 2019 to 2025. Each line represents the different core subjects offered under the Certificate II – Mathematics (purple), Integrated Science (green), Social Studies (orange), and English (blue).

Figure 54: Pass Rate of Certificate II Core Nov/Dec Examinations

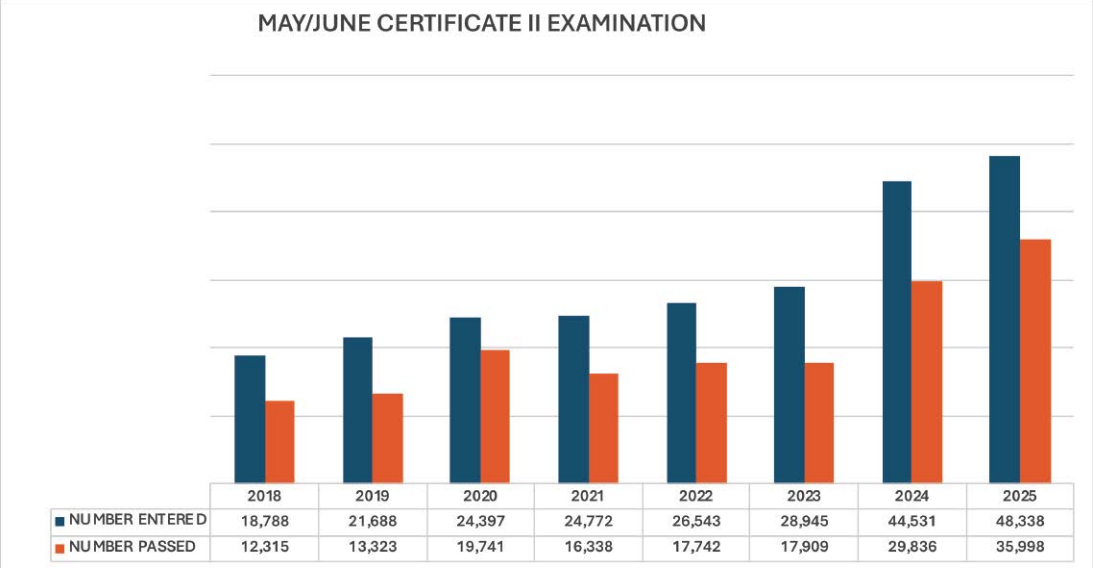


Source: CTVET Survey data, 2025.

The analysis shows that pass rates in Certificate II core subjects have followed an overall pattern of improvement from 2019 to 2022, a decline between 2023 and 2024, and a recovery in 2025. Mathematics and Integrated Science recorded notable improvements up to 2022, though both experienced fluctuations in subsequent years, with Integrated Science achieving its highest pass rate in 2025. Social Studies remained relatively stable throughout the period, while English Language showed the most variability, with sharp increases and declines before improving again in 2025. Overall, the trends highlight inconsistencies in learning outcomes and underscore the need for targeted interventions to strengthen both foundational and technical competencies.

The graph below shows the number of learners who sat the Certificate II elective examination from 2018 to 2025. The blue bar indicates the number of learners who sat the exam, while the orange bar indicates those who passed the exam in Nov/Dec.

Figure 55: May/June Certificate II Examination



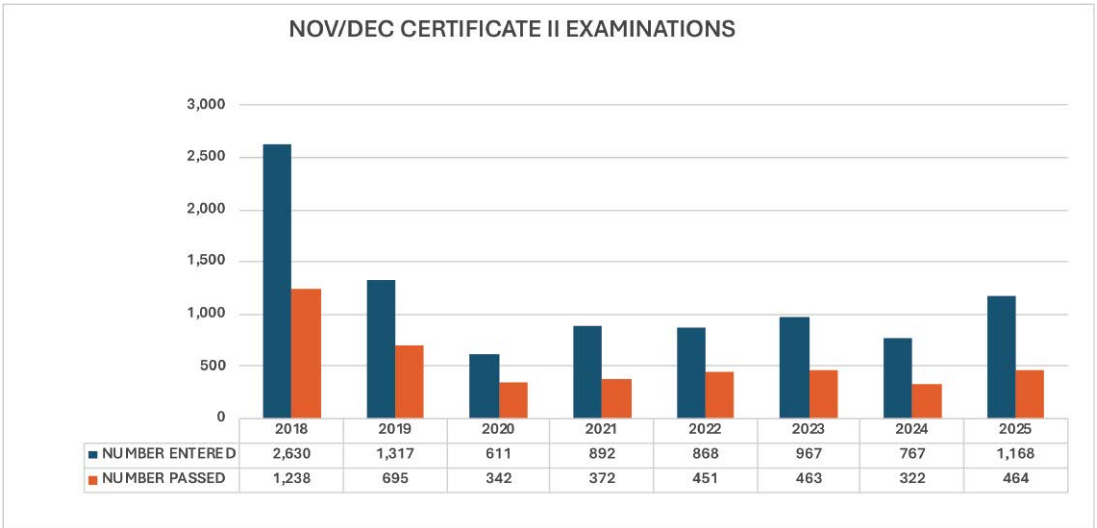
	2018	2019	2020	2021	2022	2023	2024	2025
NUMBER ENTERED	18,788	21,688	24,397	24,772	26,543	28,945	44,531	48,338
NUMBER PASSED	12,315	13,323	19,741	16,338	17,742	17,909	29,836	35,998

Source: CTVET Survey data, 2025.

The findings indicate a steady increase in both enrolment and pass numbers in Certificate II examinations, particularly from 2023 to 2025, reflecting improved participation and system performance, although gaps between entry and successful completion persist.

The graph below shows the total number of learners who sat the Certificate II elective from 2018 to 2025. The blue bar indicates the number of learners who sat the exam, while the orange bar indicates those who passed the examination in November/December.

Figure 56: Nov/Dec Certificate II Examinations



	2018	2019	2020	2021	2022	2023	2024	2025
NUMBER ENTERED	2,630	1,317	611	892	868	967	767	1,168
NUMBER PASSED	1,238	695	342	372	451	463	322	464

Source: CTVET Survey data, 2025.

The findings indicate fluctuations in both enrolment and pass numbers in the Nov/Dec Certificate II examinations, with a decline between 2018 and 2020 followed by a gradual recovery, highlighting variability in participation and persistent challenges in learner performance.

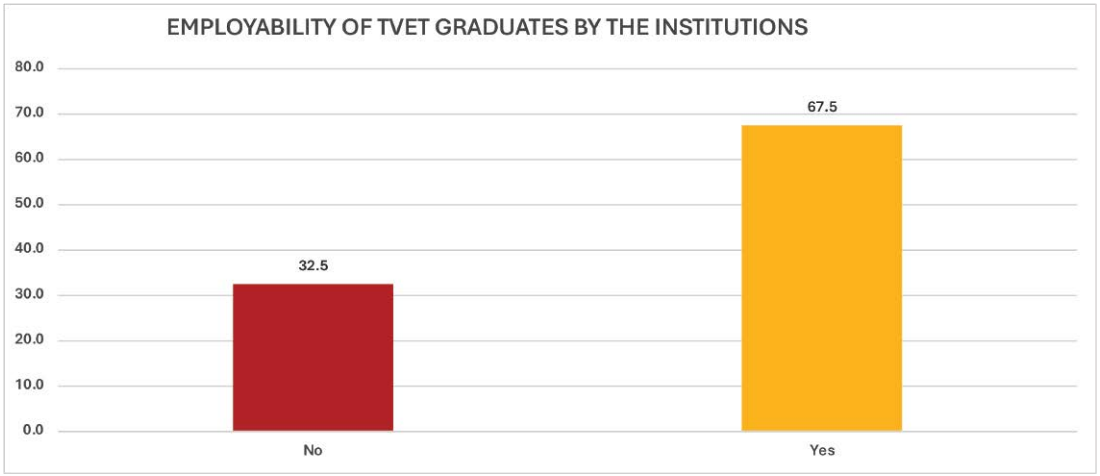
5.4. EMPLOYABILITY OF TVET GRADUATES

Employability in TVET is defined as the ability of graduates to apply competencies effectively in workplace settings, meeting employer expectations and contributing to productivity. It requires curricula aligned with industry needs and encompasses both technical, job-specific skills and soft skills such as communication, teamwork, and problem-solving. Employability also includes adaptability and personal qualities that enable individuals to secure, retain, and progress within employment as labour market opportunities evolve.

Tracking the employability of TVET graduates is very crucial and a structured process that evaluates how effectively training prepares learners for labour market integration. It uses indicators such as employment rates, job search duration, job relevance, career progression, and satisfaction to assess training quality and alignment with industry needs. Key approaches include tracer studies, labour market information systems, employer feedback, and administrative or alumni data, all of which provide comprehensive insights into graduate outcomes. Institutionalizing these mechanisms within national frameworks and integrating employer input into curricula can strengthen accountability, refine training programs, and enhance workforce readiness, ultimately supporting economic development.

This survey sought to find out whether institutions track or trace the progress of their graduates, and the next figure depicts the responses received when they were engaged by enumerators on this subject.

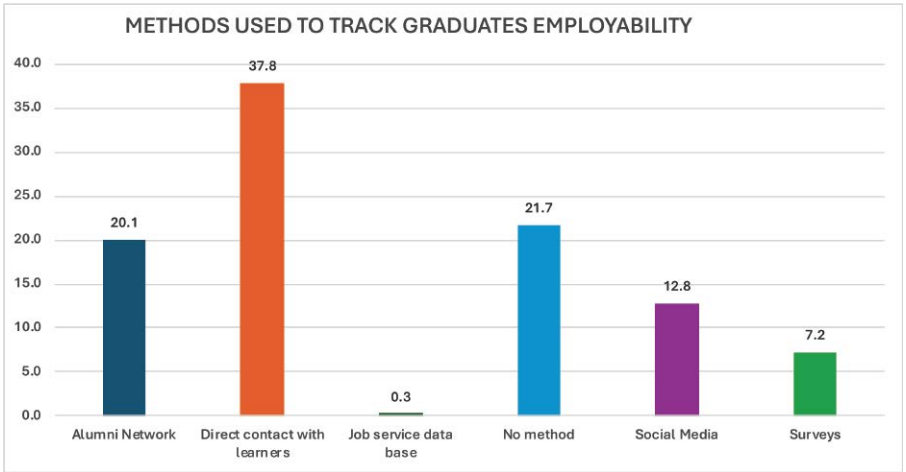
Figure 57: Employability of TVET Graduates by the Institutions



Source: CTVET Survey data, 2025.

Survey results show that 67.5% of institutions track the employability of their graduates, whereas 32.5% do not. This suggests that, while many institutions have started monitoring post-graduation outcomes, a significant number still lack structured systems to assess how well their graduates perform in the labour market. This goes to say that Employability monitoring is widely practiced in most of the schools, and the notable proportion of institutions without such systems represents a critical gap. There is a need to address this gap to ensure comprehensive evaluation of education-to-employment pathways and to support continuous improvement in higher education outcomes.

Figure 58: Methods Used to Track Graduates Employability



Source: CTVET Survey data, 2025.

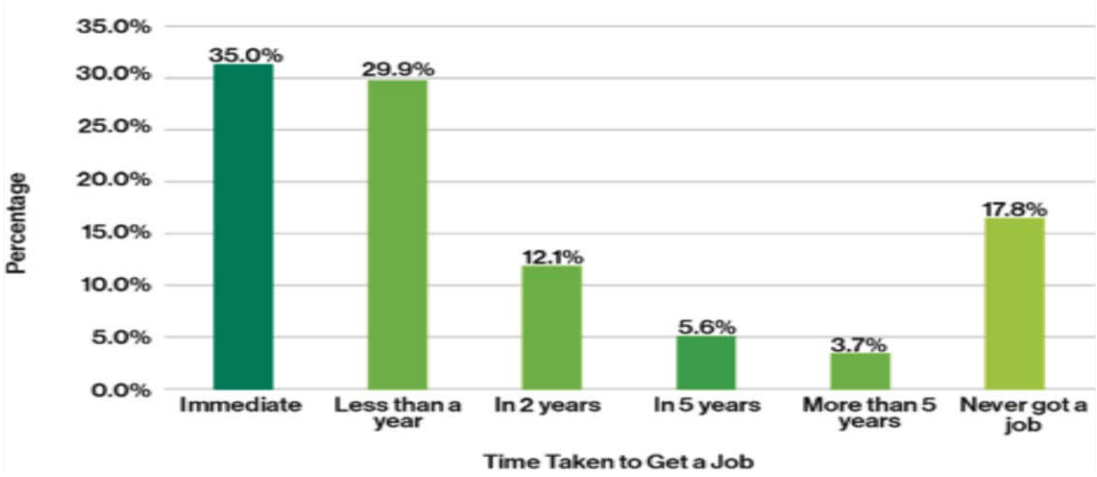
Findings show that institutions primarily monitor graduate employability through direct contact with graduates (37.8%), followed by alumni networks (20.1%). A significant 21.7% reported "No method," indicating the absence of tracking mechanisms in many institutions. Other methods are less common, including social media (12.8%), surveys (7.2%), and job service databases (0.3%). Overall, while most institutions attempt to track employability, approaches remain informal and limited in scope. The study underscores the need to institutionalize structured, technology-driven systems capable of producing reliable, scalable, and long-term employability data for policy and program improvement.

5.5. TVET GRADUATES AND EMPLOYABILITY

TVET graduates face a critical transition into the labour market, shaped by limited job opportunities, skills mismatches, and a lack of work experience. Many pursue internships, apprenticeships, vacancies, or self-employment, with outcomes influenced by skill relevance, practical training, job search competencies, economic conditions, and entrepreneurship prospects. Graduates combining technical and soft skills, supported by career guidance and counselling, are more likely to secure employment quickly, underscoring the need for stronger alignment between TVET programmes and labour market demands.

In a related survey, it was established that 64.9% of TVET graduates secure jobs within the first year after graduating. This is reflected in the next figure.

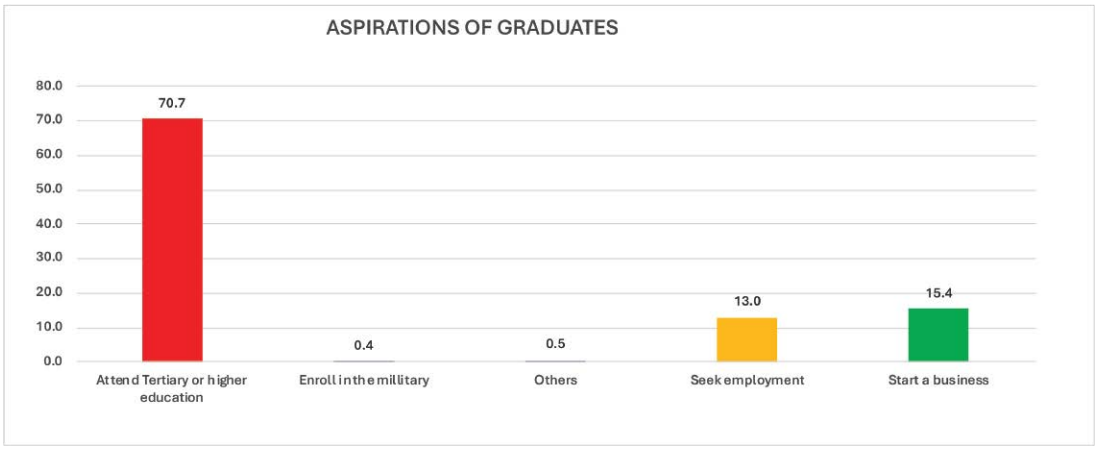
Figure 59: Time taken to secure first employment



Source: TVET Practices in Ghana: Assessing Opportunities for Improved Delivery, June 2022.

Figure 59 indicates that 77% of graduates who participated in the survey got jobs within two years after graduating. This is very positive, and it is our firm belief that TVET is the recommended pathway to increased youth employability. 17.8% never got jobs, and this is a matter of concern because all skills acquisition should lead to employability. What is not certain is whether the 17.8% persons created their own ventures and became self-employed or not.

Figure 60: Aspirations of Graduates



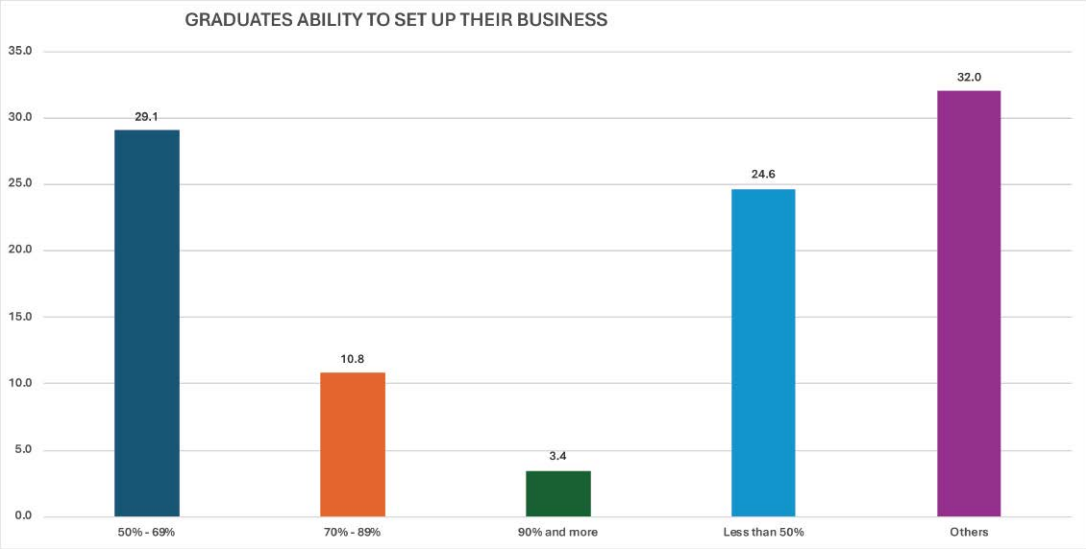
Source: CTVET Survey data, 2025.

The findings on post-graduation intentions show that a significant majority of learners (70.7%) intend to pursue further tertiary-level studies, reflecting a strong preference for academic progression within the TVET pathway before entering the labour market. This suggests growing confidence in structured progression opportunities within the TVET system. Meanwhile, 15.4% of respondents express interest in starting their own businesses, underscoring TVET's role in promoting entrepreneurship and self-employment. Additionally, 13.0% intend to seek employment in existing organisations, indicating a moderate transition into the formal labour market. A very small proportion of learners (0.4%) prefer to enrol in the military, while 0.5% indicate alternative pathways, including full-time attachment, travelling abroad, or uncertainty about their next steps. The results suggest that while entrepreneurial and employment pathways exist, the dominant aspiration among TVET graduates is academic advancement, with implications for strengthening progression routes and aligning training with both higher education and labour market needs.

5.6. ENTREPRENEURSHIP AMONG TVET GRADUATES

TVET graduates establishing businesses reflect the application of technical and entrepreneurial skills acquired to create self-employment ventures, contributing to job generation beyond the formal labour market. Integrating entrepreneurship education into TVET equips learners with competencies in business planning, financial management, innovation, and risk-taking, enhancing sustainability. Key supports for business creation include strong technical skills, entrepreneurship training in management and marketing, access to capital through loans or microfinance, institutional support from TVET programs, incubators, and government initiatives, as well as market opportunities that determine viability. Together, these elements enable graduates to transition effectively into enterprise development. The next figure looks at the ability of graduates to set up businesses

Figure 61: Graduates Ability to Set up their Business



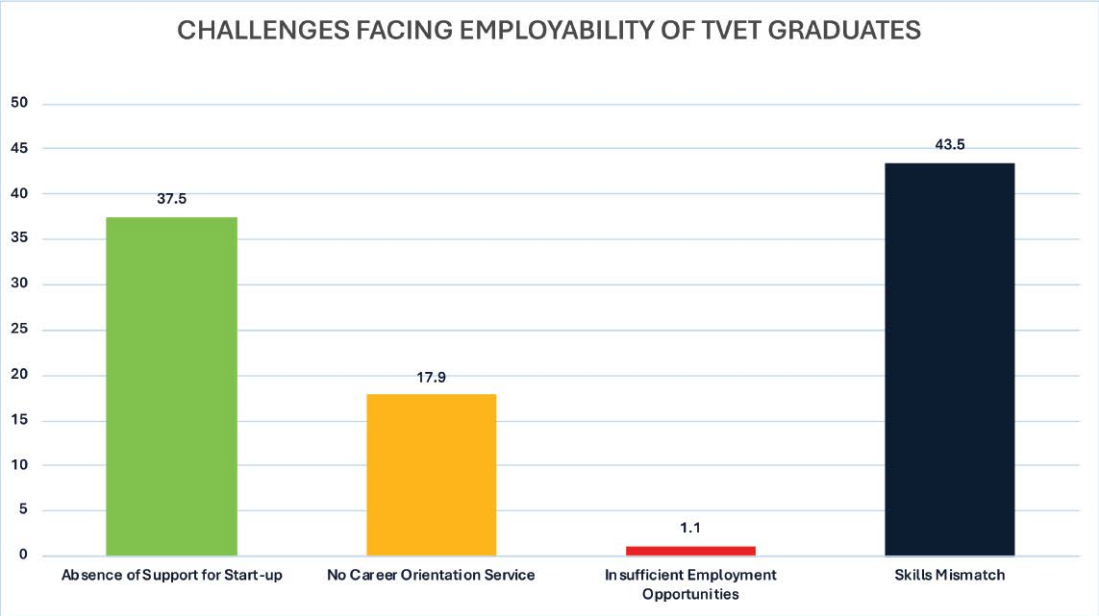
Source: CTVET Survey data, 2025.

Entrepreneurship among TVET graduates is increasingly recognized as a critical driver of employment and innovation, yet institutional monitoring of these outcomes remains inconsistent. Results indicate that 32.0% of institutions reported "Others," reflecting limited or absent tracking of graduate business ventures. Among those with data, 29.1% noted that 50–69% of graduates establish businesses, while 24.6% reported fewer than 50%. Higher levels are rare, with 10.8% indicating 70–89% and only 3.4% reporting over 90%. These findings highlight moderate entrepreneurial success but underscore the need to strengthen entrepreneurship education, provide startup support, and implement robust monitoring systems.

5.7. CHALLENGES FACED BY TVET GRADUATES FOR EMPLOYMENT

Challenges faced by TVET graduates for employment stem from structural, institutional, and individual factors. Despite the practical orientation of TVET, many graduates struggle to secure sustainable employment due to skills mismatches where training does not align with industry needs, limited practical training facilities, and weak industry linkages that restrict internships and exposure. Inadequate soft skills and weak career support further undermine employability. Additionally, slow adaptation to technological changes, limited access to finance for entrepreneurship, and the prevalence of unstable informal labour markets compound these challenges, highlighting the need for reforms that strengthen training relevance, industry collaboration, and support systems.

Figure 62: Challenges faced by TVET graduates for employment



Source: CTVET Survey data, 2025.

This graph highlights the key challenges affecting the employability of TVET graduates. Skills mismatch (43.5%) is the dominant constraint, indicating gaps between training outcomes and industry requirements. The absence of start-up support (37.5%) limits entrepreneurial pathways, while weak career guidance (17.9%) affects school-to-work transitions. Limited job opportunities (1.1%) remain marginal but very relevant.

This pattern implies a largely supply-driven TVET system with insufficient industry alignment and weak transition mechanisms. It requires strengthened industry-led curriculum design, expanded work-based learning, institutionalized career guidance, and integrated start-up support systems to improve graduate employability outcomes.

CHAPTER 6

ENVIRONMENTAL SUSTAINABILITY & GREENING TVET

6.0. INTRODUCTION

Environmental sustainability has become a key priority on the global development agenda, as countries grapple with the worsening effects of climate change, ecological decline, biodiversity reduction, and the rapid depletion of natural resources. In response, governments, institutions, and communities are fundamentally rethinking their approaches to development, education, and economic activities. At the core of this reassessment is the concept of "greening," which involves deliberately embedding sustainability principles into policies, practices, infrastructure, and organisational culture, which is now seen as essential for credible, long-term development. Within this context, education systems are increasingly acknowledged as critical enablers of sustainable development, and Technical and Vocational Education and Training (TVET) is considered to hold a strategic position in this. By equipping individuals with practical, industry-relevant skills, TVET directly influences production processes, consumption patterns, and workforce behaviour, making it a powerful lever for advancing environmentally responsible practices and sustainable industrial growth.

In this chapter, the concept of "greening TVET" has gained worldwide recognition. Greening TVET involves the systematic incorporation of environmental sustainability principles into all aspects of the TVET system, including a green curriculum, a green campus, a green culture, green research, and a green community. The primary goal is to create a workforce that combines technical skills with the knowledge, values, and attitudes needed to support a low-carbon, resource-efficient, and environmentally sustainable economy. In practice, TVET graduates from electricians installing solar energy systems to plumbers implementing water-saving solutions and builders applying eco-friendly construction methods are among the main agents shaping both the built and natural environments. As repeatedly affirmed by UNESCO-UNEVOC and the International Labour Organisation (ILO), greening TVET is vital to developing a skilled workforce capable of leading the transition to a green economy and advancing progress towards the United Nations Sustainable Development Goals (SDGs).

In Ghana, environmental sustainability has been strategically integrated into the national TVET reform agenda under the leadership of the Commission for Technical and Vocational Education and Training (CTVET). Recognising greening as a vital component of skills development, CTVET has aligned its mandate with global green industry trends. Key initiatives include embedding sustainability principles into competency-based curricula across programmes such as construction, agriculture, energy, hospitality, and waste management. TVET institutions are supported to develop Institutional Greening Plans (IGPs), with 136 institutions (including principals and facilitators) trained in 2025. The Commission is also building industry-aligned green skills through strategic partnerships with the Ghana TVET Service and the Jospong Group of Companies, while organising sensitisation workshops and training to foster environmental stewardship.

Activities undertaken within the TVET sector include:

- Greening TVET Workshop for TVET institutions: CTVET brought together heads of Technical and Vocational Institutes (TVIs) to raise awareness and build capacity on greening, covering green concepts, SDGs, green job opportunities, campus greening, and curriculum integration. Participants were tasked with developing Institutional Greening Plans (IGPs). In 2025, 136 institutions were trained in developing their IGPs.
- Partnership Outdooring and Validation Workshop (March 2025): CTVET, GIZ, and the TVET Service jointly organised a validation workshop to finalise criteria for greening TVET institutions and develop guidelines for integrating green skills into curricula. The event was supported by the EU and attended by the EPA, Jospong Group, and key development partners.
- CTVET, TVET Service and Jospong Group Partnership: A strategic alliance was established to introduce Workplace Experiential Learning (WEL) in waste management and sanitation, offering TVET learners practical experience with industry-grade green technologies and practices at Jospong Group facilities.
- Green Curriculum Development: CTVET is actively reviewing competency-based curricula across construction, agriculture, energy, hospitality, and waste management to embed green skills in line with the National TVET Qualifications Framework (NTVETQF). CTVET, in partnership with GIZ, has developed 3 CBT green curricula in Building Construction, Bio Digester Construction, and Recycling Technology, and these programmes are being piloted in the following institutions: Kpando Technical Institute, Tema Technical Institute, Koforidua Technical Institute, Kumasi Technical Institute, Takoradi Technical Institute and Dabokpa Technical Institute.

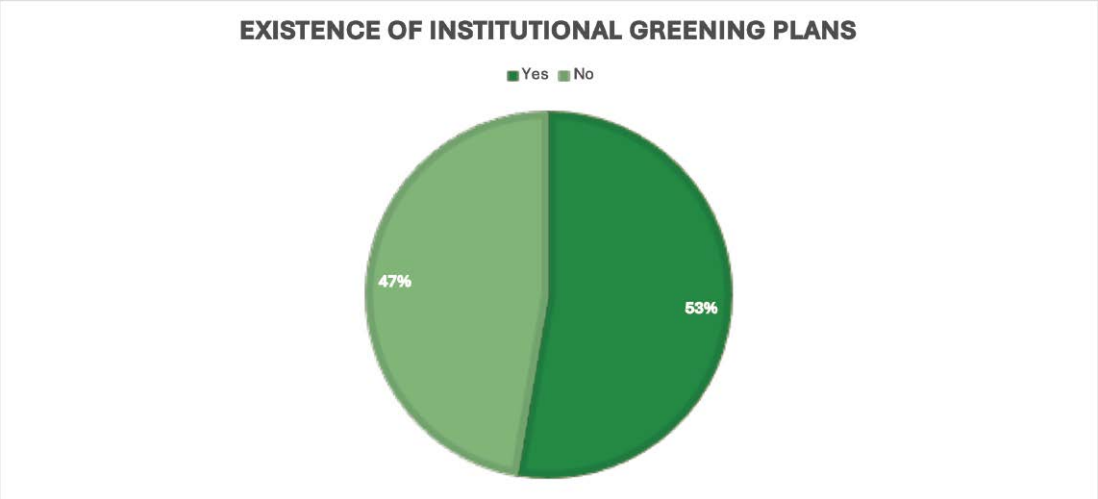
Collectively, CTVET's efforts are positioning Technical and Vocational Education and Training (TVET) as a key driver in Ghana's transition to a green economy. This chapter presents findings from a stakeholder survey on the current state of greening and environmental sustainability practices in Ghana's TVET sector.

The following data presents findings gathered from key TVET stakeholders on the extent to which greening practices and environmental sustainability principles are being implemented across the sector. The data captures the perspectives and reported practices of learners, facilitators, institutional leaders, and community partners, providing a structured basis for assessing the current state of greening implementation within Ghana's TVET institutions and identifying areas that require further attention and investment.

6.1. INSTITUTIONS WITH INSTITUTIONAL GREENING PLAN

A formal Institutional Greening Plan (IGP) serves as the strategic backbone for embedding sustainability into institutional operations. The following chart examines the proportion of TVET institutions that have developed and adopted such plans, providing a measure of how systematically sustainability is being approached at the institutional level.

Figure 63: Existence of Institutional Greening Plans



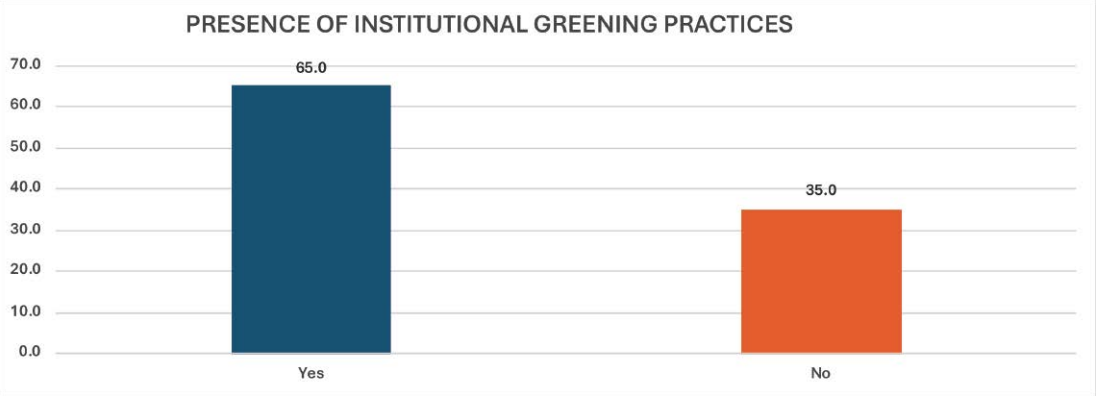
Source: CTVET Survey data, 2025.

The findings show that Ghana's TVET sector is in a transitional phase regarding greening. While a slight majority (52.7%) of institutions have a formal Institutional Greening Plans (IGPs) in place, nearly half (47.3%) still do not. This near-equal split raises concern, as the absence of a structured plan in almost half the institutions means sustainability efforts remain largely reactive and ad hoc rather than strategic. Without formal plans, environmental initiatives risk being discontinued during leadership changes or budget constraints. The survey highlights the urgent need to scale up efforts at getting all TVET Institutions to develop their IGPs and move into action on the activities that require minimal or no resources.

6.2. INSTITUTIONAL GREENING PRACTICES

Environmental sustainability and greening have become increasingly important for institutions in the TVET space. To understand the current state of sustainability efforts in TVET institutions, a survey was conducted to assess the adoption of greening practices across various institutions.

Figure 64: Presence of Institutional Greening Practices



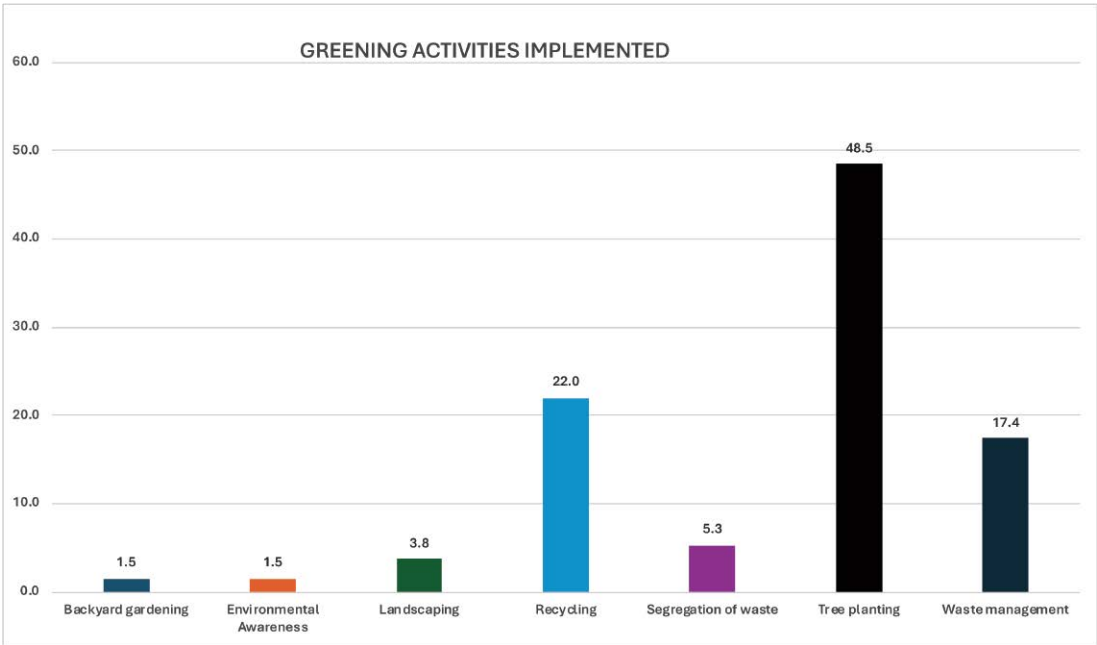
Source: CTVET Survey data, 2025.

The findings reveal that most institutions have embraced greening initiatives. 65% of the respondents affirmed that their institutions have implemented greening practices. These practices typically include measures such as energy-efficiency programs, waste-reduction and recycling systems, water conservation, the use of renewable energy sources, and sustainable procurement policies. In contrast, 35% of the respondents indicated that their institutions do not have any greening practices in place. This suggests that while there is encouraging progress in integrating environmental considerations into institutional operations, a significant portion still lags in adopting sustainable practices.

The results highlight a positive trend towards greater environmental responsibility among institutions. However, the 35% of institutions without greening practices represent a critical area for improvement. Targeted interventions, awareness campaigns, and policy support may be necessary to encourage broader adoption of greening strategies and accelerate the transition towards more sustainable institutional operations.

In addition, institutions are engaging in various greening activities ranging from basic awareness campaigns to more advanced interventions such as waste management and landscaping, as shown in Figure 65.

Figure 65: Greening Activities Implemented



Source: CTVET Survey data, 2025.

The data presented in the chart highlights the distribution and uptake of key greening practices across the assessed institutions, revealing notable disparities in implementation levels. Tree planting emerges as the most widely adopted initiative, accounting for 48.5% of responses. Its prominence suggests a strong institutional preference for highly visible and relatively straightforward environmental interventions that also carry symbolic significance. This dominance, however, may also indicate a tendency to prioritise activities that are easier to organise and showcase, rather than those requiring sustained behavioural or structural change. Recycling follows at 22.0%, reflecting a moderate level of adoption. This indicates that several institutions have begun to establish systems for material recovery and reuse, although the practice is not yet universal. Similarly, waste management practices account for 17.4%, suggesting growing awareness of the need for proper waste handling, albeit with varying levels of effectiveness and consistency.

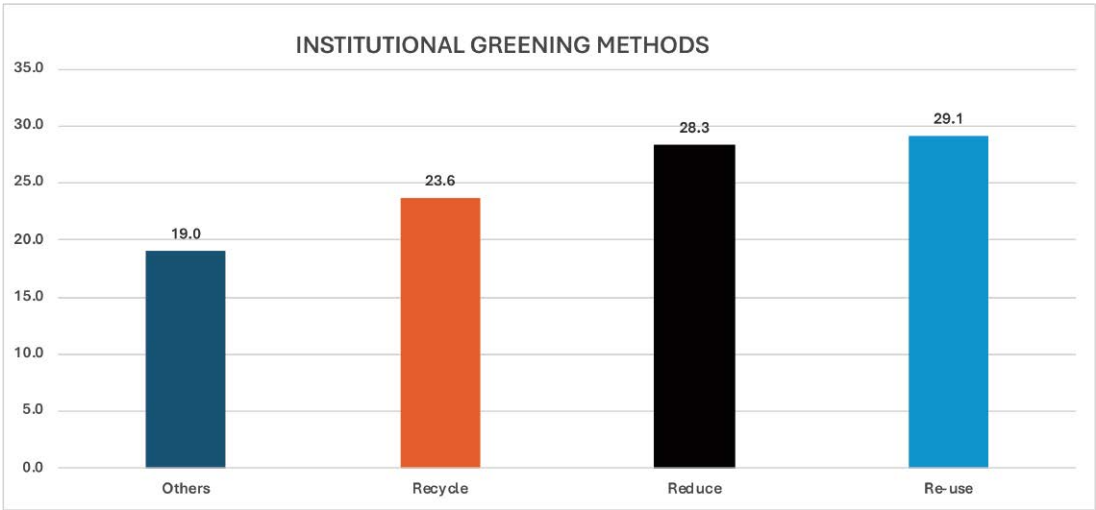
In contrast, more system-oriented practices record significantly lower levels of implementation. Waste segregation stands at 5.3%, which is particularly notable given its critical role in enabling effective recycling. This gap points to a disconnect between the presence of recycling initiatives and the foundational practices required to sustain them. Landscaping activities (3.8%) and backyard gardening (1.5%) are also minimally adopted, potentially due to the higher costs, space requirements, or ongoing maintenance they demand. Environmental awareness initiatives record the lowest uptake at 1.5%. This is a key concern, as awareness and education are fundamental to fostering long-term behavioural change and supporting the sustainability of all other environmental interventions.

Overall, the findings suggest that while institutions are engaging in environmental activities, there is a clear inclination towards visible, one-off initiatives rather than comprehensive, integrated systems. To enhance impact, there is a need to strengthen foundational practices such as waste segregation and environmental education, which underpin more sustainable and effective environmental management.

6.3. INSTITUTIONAL GREENING METHODS

The 3Rs framework (Reduce, Reuse, and Recycle), constitutes the foundational pillar of circular economy practice and sustainable resource management. The graph below assesses the extent to which TVET institutions have integrated these methods into their operational routines, providing insight into the depth of waste minimisation culture within the sector.

Figure 66: Institutional Greening Methods



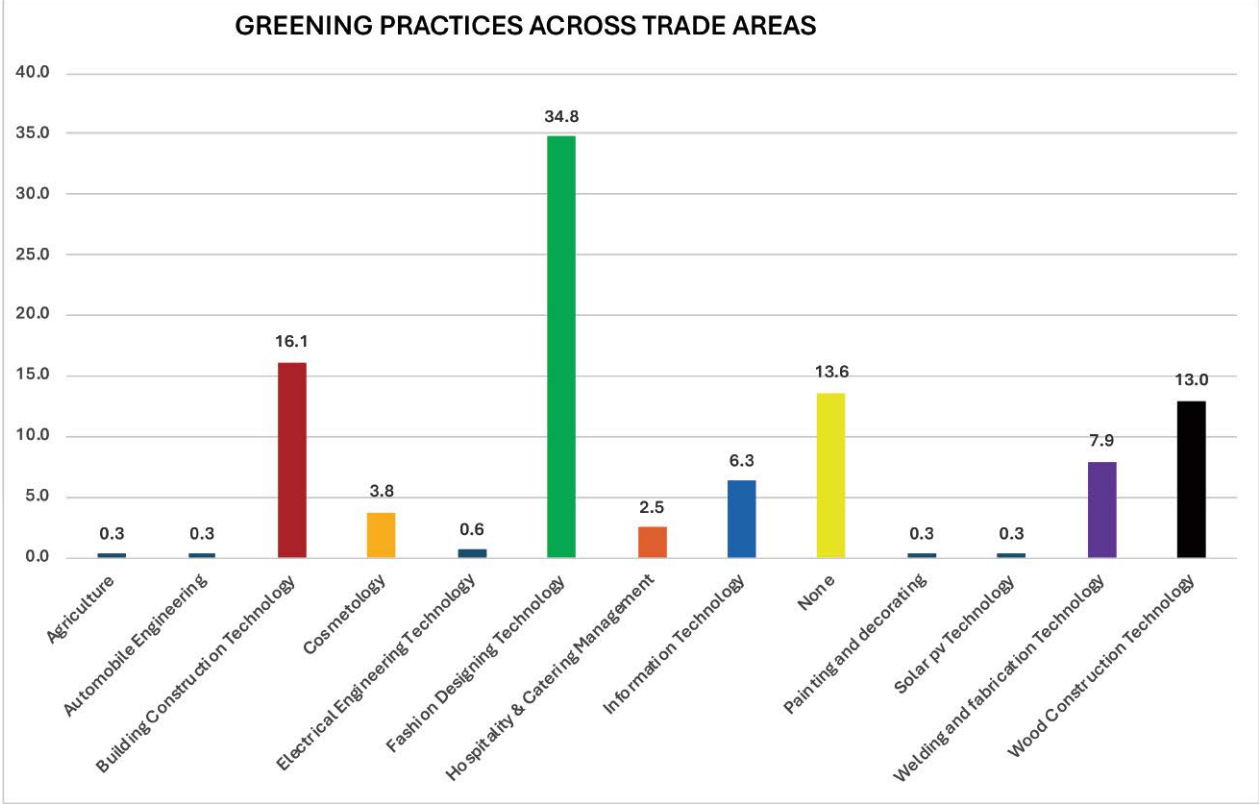
Source: CTVET Survey data, 2025.

Institutions have demonstrated a relatively balanced yet moderate application of the "Reduce, Reuse, Recycle" framework. "Reducing" waste is the most common practice (28.3%), followed by "recycling" (23.6%) and "reusing" (23.1%). However, 19% of institutions do not implement any of these methods. This indicates that while waste reduction concepts are understood and partially adopted, they have not yet been fully incorporated into standard operating procedures across a significant portion of institutions.

6.3.1. Green Practices Across Trade Areas

For greening to achieve genuine institutional impact, it must extend beyond isolated departments and become embedded across all trade areas. The following chart maps the distribution of greening engagement by trade programme, highlighting which sectors are leading and which remain disengaged from environmental practice.

Figure 67: Greening Practices Across Trade Areas



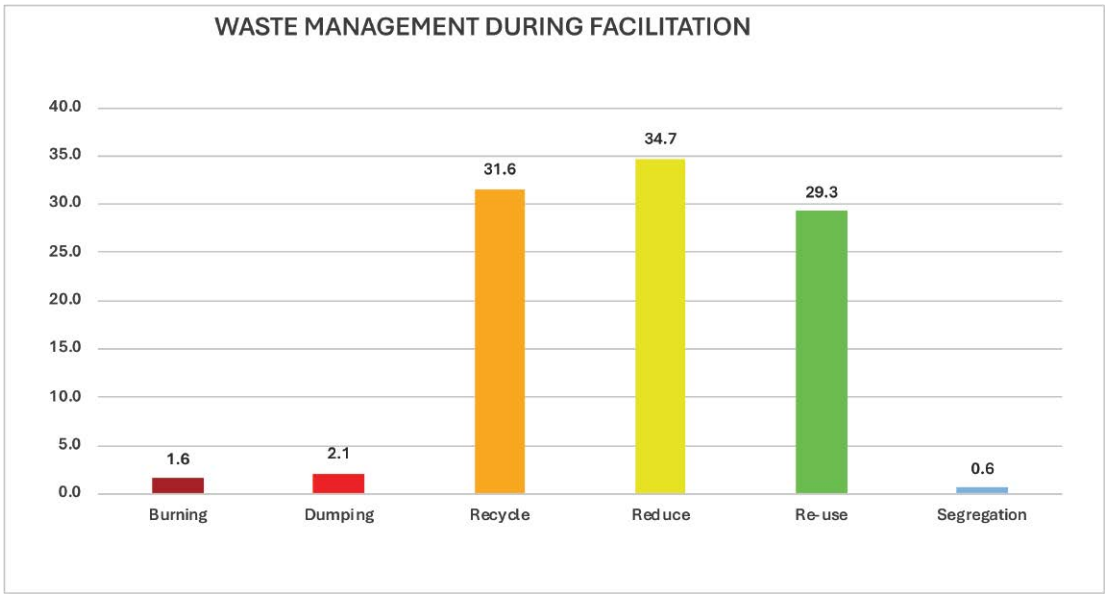
Source: CTVET Survey data, 2025.

The data reveal a striking concentration of greening activity within a small number of trade areas, while the majority remain largely disengaged. Fashion Designing Technology leads with 34.8% engagement, followed by Building Construction Technology (16.1%) and Information Technology (13.0%). Conversely, Agriculture (0.3%) and Automotive Engineering (0.3%), both sectors with significant environmental footprints and direct relevance to green economy transitions. A further 13.6% of institutions fall under the 'None' category. This uneven distribution suggests that greening efforts have been adopted selectively rather than systematically, driven by departmental interest rather than institutional strategy. It is particularly concerning that sectors most aligned with the green economy, such as agriculture and engineering, are among the least engaged, undermining the sector's broader contribution to Ghana's sustainability agenda.

6.3.2. Managing Waste During Facilitation

Beyond the survey on green practices across trade areas, facilitators were invited to describe in their own words the greening initiatives they have personally undertaken or led during facilitation. These narrative responses provide qualitative depth to the quantitative patterns identified earlier. The graph below summarises the themes emerging from these open-ended responses.

Figure 68: Waste Management During Facilitation



Source: CTVET Survey data, 2025.

During the actual process of teaching and facilitation of the trade areas, waste management is focused on "Reducing" (34.7%), "Recycling" (31.6%), and "Reusing" (29.3%). However, "Segregation" of waste is nearly non-existent at 0.6%. This indicates that while facilitators attempt to limit waste, the lack of source-segregation infrastructure makes actual recycling difficult.

6.3.3. Environmental Sustainability Systems in TVET Institutions

This section examines the environmental sustainability practices of TVET institutions, focusing on liquid waste management, solid waste management, energy sources, and energy management. Together, these areas provide a clear picture of how institutions manage resources and align their operations with sustainability principles. The findings highlight persistent gaps in infrastructure and practice, indicating a disconnect between sustainability objectives and their practical implementation within institutions.

6.3.4. Liquid Waste Management

Effective liquid waste management is a fundamental indicator of environmental stewardship within educational institutions. The survey indicates the state of wastewater management infrastructure across TVET institutions, categorising systems by functionality, ranging from fully operational to absent. The findings reveal a significant infrastructure deficit. A substantial 43.3% of institutions operate without any liquid waste management system, representing the largest category. While 23.2% report having systems that are adequate but require maintenance, only 7.9% have fully functional systems that meet expected standards. Additionally, 25.6% of institutions report having inadequate systems. In total, approximately 92% of institutions operate below acceptable standards for liquid waste management.

This widespread deficiency highlights a critical gap that undermines both environmental sustainability and the quality of practical training. It is particularly concerning for programmes that depend on water-use competencies, where functional systems are essential for effective skills development.

6.3.5. Solid Waste Management

Solid waste management practices reflect institutional environmental responsibility and are especially important in TVET institutions, where they are integral to the practical learning environment. The survey shows the waste disposal methods employed across institutions, ranging from environmentally sustainable practices to harmful ones. The data present a concerning scenario. Burning is the most common disposal method, reported by 37.0% of institutions, despite its contribution to greenhouse gas emissions and the release of harmful air pollutants. Open dumping follows at 22.7%. Combined, these unsustainable practices account for nearly 60% of all waste disposal methods.

In contrast, more sustainable approaches remain limited: composting is practised by 11.3% of institutions, recycling/reuse/reduction by 14.6%, and formal waste collection services account for 14.4%. The dominance of environmentally harmful practices is particularly paradoxical given the role of TVET institutions in promoting green skills. These findings point to an urgent need for investment in waste management infrastructure, alongside behavioural and institutional reforms, to align operational practices with sustainability principles.

6.3.6. Sources of Energy

Energy consumption is a major contributor to an institution's environmental footprint. Transitioning to renewable and decentralised energy sources is essential not only for reducing emissions but also for demonstrating the green practices that TVET graduates are expected to adopt. The chart below presents the primary energy sources used by TVET institutions. The data indicate an overwhelming dependence on the national grid, which supplies 83.5% of institutions. Solar energy accounts for only 8.4%, despite the country's strong potential for solar power. Generator use stands at 6.3%, while firewood and other minor sources contribute negligibly.

This heavy reliance on a centralised energy source exposes institutions to external power disruptions and reflects limited investment in renewable alternatives. More importantly, it represents a missed opportunity for experiential learning. TVET institutions - particularly those offering programmes in electrical engineering and solar photovoltaic technology - should function as practical demonstration sites for renewable energy integration. The current energy profile suggests a misalignment between institutional infrastructure and the green economy principles embedded in the curriculum.

6.3.7. Energy Management

Beyond energy sources, the way institutions manage and conserve energy provides insight into the depth of their environmental commitment. The data outlines the energy management strategies adopted across TVET institutions.

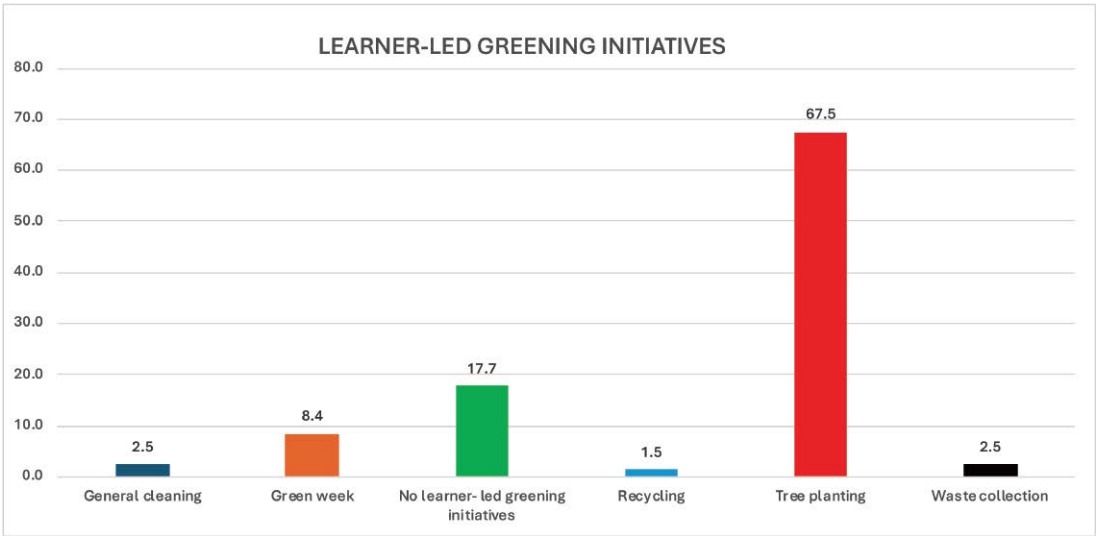
A plurality of institutions (43.6%) report implementing basic energy-saving measures such as LED lighting, sensor-based systems, and inverter technologies, reflecting a positive but foundational level of engagement. Regular energy audits are conducted by 25.6% of institutions, indicating a more structured and systematic approach. However, 21.1% report having no energy management measures in place, and only 9.7% have adopted alternative renewable energy solutions. Overall, the sector's approach to energy management appears largely reactive and hardware-focused, prioritising incremental efficiency improvements over comprehensive energy transition strategies.

The limited uptake of renewable energy is particularly notable given the relevance of such technologies to many TVET programmes. Strengthening the alignment between training content and institutional practice should be a key priority in advancing sustainability within the sector.

6.4. GREENING ACTIVITIES AND LEARNER ENGAGEMENT

Learner engagement in sustainability is a critical dimension of green skills development, extending beyond the classroom into hands-on environmental practice. The next figure captures the types of greening activities that students themselves are initiating or leading within their institutions, providing a measure of learner-driven environmental engagement.

Figure 69: Learner-led greening initiatives



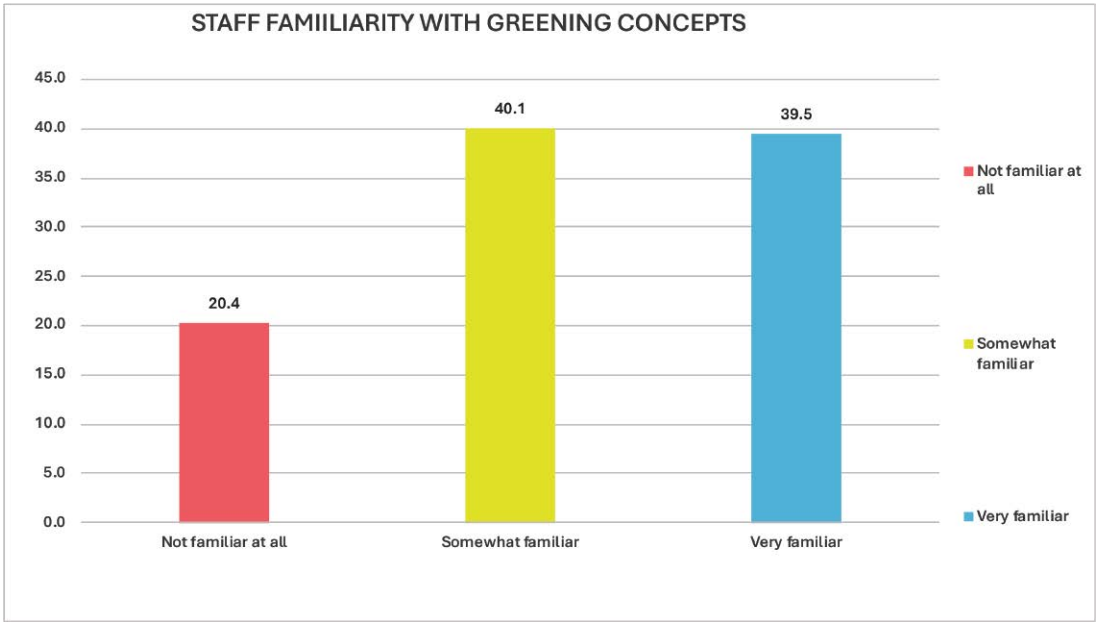
Source: CTVET Survey data, 2025.

Learner-led greening activity is overwhelmingly dominated by tree planting, which accounts for 67.5% of all reported student initiatives, topping every other category. Activities such as waste collection (2.5%), general cleaning (2.5%), and green week participation (8.4%) register at comparatively low levels, while recycling (1.5%) and other technical activities are barely present. Notably, 17.7% of institutions report no learner-led greening initiatives at all. The lopsided dominance of tree planting, while positive as an entry point for environmental engagement, suggests that learner participation has not yet diversified into the more technical, industry-relevant sustainability practices that TVET graduates will need to apply professionally. Building learner-led programmes that incorporate waste management, energy conservation, and environmental monitoring would significantly strengthen the sector's green skills pipeline.

6.5. STAFF FAMILIARITY WITH ENVIRONMENTAL SUSTAINABILITY AND GREENING

Facilitators are the primary conduit through which greening concepts reach learners. Their level of familiarity with sustainability principles therefore, determines the quality and consistency of green skills education. The chart below presents self-reported familiarity levels among TVET facilitators with the concept of greening in the TVET context.

Figure 70: Staff Familiarity with Greening Concepts



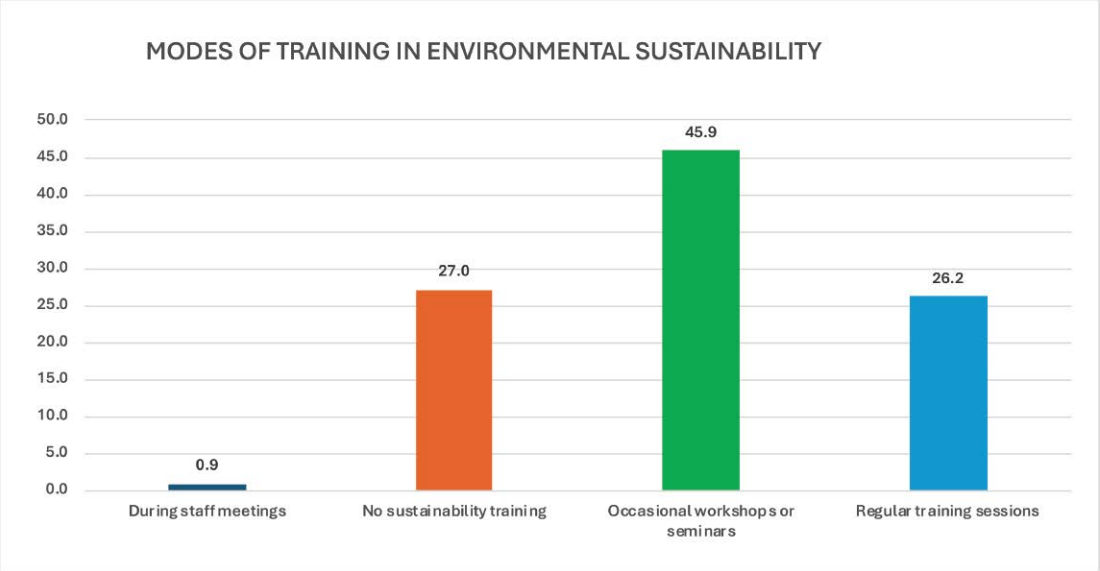
Source: CTVET Survey data, 2025.

The baseline awareness profile of TVET facilitators is encouraging: approximately 79.6% demonstrate some degree of familiarity with greening, with 39.5% identifying as 'Very familiar' and 40.1% as 'Somewhat familiar'. Only 20.4% report being entirely unfamiliar with greening concepts. This high level of conceptual awareness represents a strong foundation upon which targeted professional development can build. However, as subsequent data will show, awareness does not automatically translate into instructional practice or project execution. The familiarity figures establish an optimistic baseline, but must be interpreted alongside data on formal training participation and project initiation to understand the full facilitator capacity picture.

6.5.1. Staff Training on Environmental Sustainability

The capacity of TVET institution staff to deliver green education is fundamentally shaped by their own exposure to sustainability training. The chart below presents the reported modes and frequency of sustainability-related training participation among TVET institution staff, revealing the current professional development landscape.

Figure 71: Modes of Training in Environmental Sustainability



Source: CTVET Survey data, 2025.

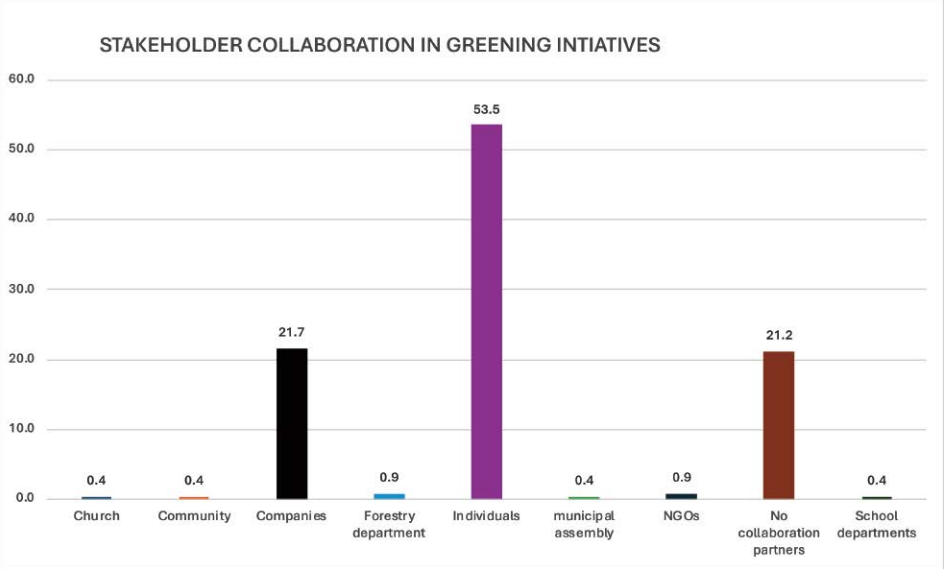
The data reveal a significant gap in professional development for environmental sustainability. While 45.9% of staff participate in occasional workshops or seminars, these ad hoc sessions offer limited depth and continuity. Only 26.2% benefit from regular training sessions, which provide the structured and ongoing development needed to build real competency. Most concerning is that 27.0% of staff receive no sustainability training at all, with a small additional group accessing it only during staff meetings at 0.9%.

Overall, these figures indicate that nearly three-quarters of the TVET workforce lacks consistent and formal sustainability education. In a sector where instructors are expected to model and teach green practices to learners, this gap represents a serious systemic weakness. The findings clearly highlight the urgent need to move beyond occasional awareness sessions toward embedded, competency-based sustainability training for all TVET staff.

6.6. STAKEHOLDER COLLABORATION FOR GREENING INITIATIVES

Sustainable institutional transformation rarely occurs in isolation. Strategic partnerships with government agencies, civil society organisations, and private sector entities can significantly amplify the depth and reach of greening initiatives. The chart below examines the nature of the partners that TVET institutions collaborate with on their greening activities.

Figure 72: Stakeholder Collaboration in Greening Initiatives



Source: CTVET Survey data, 2025.

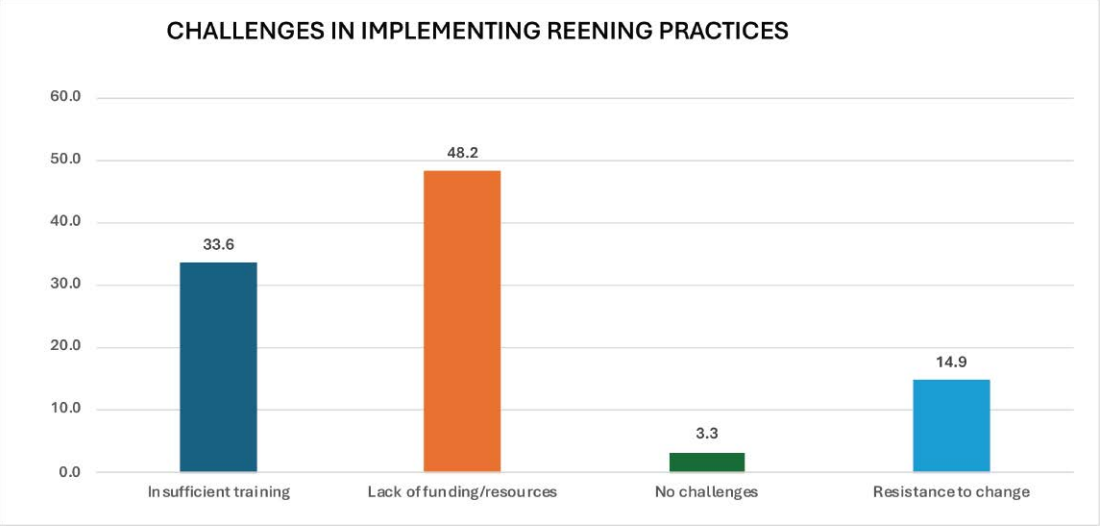
The findings reveal a collaboration landscape that remains largely informal and insufficiently institutionalised. The dominant collaboration partners are individuals at 53.5% and companies at 21.7%. Meanwhile, engagement with specialised environmental bodies, including the Forestry Department, NGOs, and Municipal Assemblies, is statistically negligible, with each recording below 1 percent. Additionally, 21.2% of institutions report having no collaboration partners at all.

This graph indicates that most greening efforts are driven primarily by personal relationships and private-sector goodwill rather than by structured institutional partnerships with organisations that possess genuine environmental expertise. The limited engagement with government agencies, local authorities, and NGOs restricts the professional quality of greening activities and disconnects TVET institutions from broader national sustainability frameworks and resources.

6.7. INSTITUTIONAL CHALLENGES IN ENVIRONMENTAL SUSTAINABILITY

Understanding what prevents TVET institutions from advancing their greening agendas is essential for designing effective support interventions. The chart below presents the primary barriers identified by respondents as obstacles to the implementation of environmentally sustainable practices.

Figure 73: Challenges in Implementing Greening Practices



Source: CTVET Survey data, 2025.

Financial constraints dominate the barrier landscape, with 48.2% of respondents citing a lack of funding and resources as the principal obstacle to the adoption of green practices. This is closely followed by insufficient training at 33.6%, reflecting the capacity deficit identified throughout the data. Resistance to change, while present at 14.9%, is a distinctly secondary concern. Importantly, 3.3% of respondents report no challenges, indicating a small but notable group suggesting that implementation is possible even within the current resource environment. The data conclusively demonstrates that the primary bottleneck for TVET greening is structural rather than attitudinal: institutions are willing but inadequately resourced and trained. Policy responses must prioritise dedicated funding streams for green infrastructure and comprehensive capacity-building programmes to achieve meaningful institutional transformation

6.8. KEY CHALLENGES AFFECTING ENVIRONMENTAL SUSTAINABILITY WITHIN THE TVET SECTOR

The following challenges represent the most pressing systemic barriers to advancing environmental sustainability across Ghana's TVET sector:

1. **Critical Infrastructure Deficits:** The majority of TVET institutions lack adequate wastewater management systems, renewable energy installations, and waste segregation infrastructure. Without this physical foundation, greening practices cannot be meaningfully operationalised or demonstrated to learners.
2. **Systemic Training Gap:** Across all respondent categories, formal greening training has reached less than a quarter of the workforce (23.9% overall). This skills deficit is the single largest barrier to translating awareness into practice.
3. **Absence of Strategic Plans:** Approximately half of all institutions operate without a formal Institutional Greening Plan, resulting in ad hoc, unsustainable, and uncoordinated environmental efforts.
4. **Unsustainable Waste Practices:** The prevalence of burning (37.0%) and open dumping (22.7%) as primary waste disposal methods is a direct contradiction of the sustainability values TVET institutions are mandated to model and transmit.

1. **Shallow Greening Activities:** Both institutional and learner-led greening activities are disproportionately dominated by tree planting and awareness campaigns, with technically meaningful and industry-relevant activities severely underrepresented.
2. **Weak Institutional Partnerships:** Collaboration with specialist environmental bodies — including government agencies, NGOs, and municipal authorities — is negligible, limiting the technical quality and sustainability of greening efforts.
3. **Community Disconnect:** The majority of institutions (63.1%) exist in communities without active greening initiatives, reducing the external reinforcement and support needed to sustain institutional sustainability cultures.

6.9. RECOMMENDED ACTIONS FOR STAKEHOLDERS

Based on the foregoing analysis, the following recommendations are directed at key stakeholders in the TVET greening agenda:

- **For CTVET and TVET Service:** Mandate the development and annual reporting of Institutional Greening Plans across all registered TVET institutions; establish a dedicated Green Infrastructure Fund to support wastewater systems, waste management facilities, and renewable energy installations; and develop a competency-based, accredited sustainability training programme for all TVET facilitators and institutional leaders.
- **For TVET Institutions:** Develop and implement comprehensive Institutional Greening Plans that address energy, water, waste, curriculum, and community dimensions; transition waste disposal practices from burning and dumping to composting, recycling, and formalised collection; and diversify learner greening activities beyond tree planting to include technically aligned initiatives such as waste-to-resource projects, solar installations, and environmental health and safety programmes.
- **For the Ministry of Education and Development Partners:** Prioritise green infrastructure investment within TVET capital development budgets; support structured, accredited sustainability training programmes aligned with national qualifications frameworks; and facilitate formal partnerships between TVET institutions and environmental agencies, industry associations, and municipal assemblies to embed greening within community development strategies.
- **For Industry and Private Sector Partners:** Formalise mentorship and workplace learning pathways in green industries, particularly waste management, renewable energy, sustainable construction, and environmental services, to provide TVET learners with industry-grade practical exposure to green economy practices.

Collectively, these actions address the structural, financial, and capacity barriers that currently prevent Ghana's TVET sector from fulfilling its potential as a driving force in the nation's transition to a green, inclusive, and sustainable economy.

The findings presented in this chapter reveal that Ghana's TVET sector stands at a critical but promising juncture in its journey toward environmental sustainability and institutional greening. While there is clear evidence of growing awareness, policy direction, and initial adoption of greening practices, the overall landscape remains fragmented, uneven, and largely transitional. Encouragingly, a majority of institutions have begun integrating sustainability initiatives, and facilitators demonstrate a strong baseline familiarity with greening concepts. National leadership, particularly through CTVET and its partners, has also laid a solid foundation by embedding green principles into curricula, training, and institutional planning frameworks.

However, this progress is constrained by persistent structural and systemic gaps. The absence of comprehensive greening plans in a significant proportion of institutions, inadequate infrastructure for waste and energy management, limited adoption of renewable energy, and the continued reliance on environmentally harmful waste disposal methods highlight a disconnect between sustainability ambitions and operational realities. Furthermore, the dominance of surface-level activities such as tree planting, coupled with weak stakeholder collaboration and insufficient staff training, underscores the need to deepen and institutionalise greening efforts across all levels of the TVET system.

Crucially, the study demonstrates that the barriers to greening are not rooted in resistance but in limited resources, capacity, and coordination. Institutions are willing to transition but require structured support, sustained investment, and stronger policy enforcement to do so effectively.

Moving forward, the transformation of TVET into a true driver of Ghana's green economy will depend on a shift from isolated initiatives to integrated, system-wide implementation. This includes strengthening institutional planning, investing in critical infrastructure, embedding environmental sustainability into teaching and learning processes, and fostering meaningful partnerships with industry and environmental bodies. Ultimately, greening TVET is not merely an environmental imperative but a strategic opportunity to equip learners with relevant, future-oriented skills while positioning institutions as living laboratories of sustainable practice. With deliberate and coordinated action, the TVET sector can play a pivotal role in advancing Ghana's transition to a resilient, low-carbon, and inclusive economy.

CHAPTER 7
DIGITALISATION

7.0. INTRODUCTION

Digitalisation has emerged as a critical driver of transformation within Technical and Vocational Education and Training (TVET), influencing how skills are delivered, accessed, and aligned with evolving Labor market demands. As industries increasingly adopt digital technologies, the need for a workforce equipped with relevant digital competencies continues to grow, positioning TVET systems as central to national development and economic competitiveness.

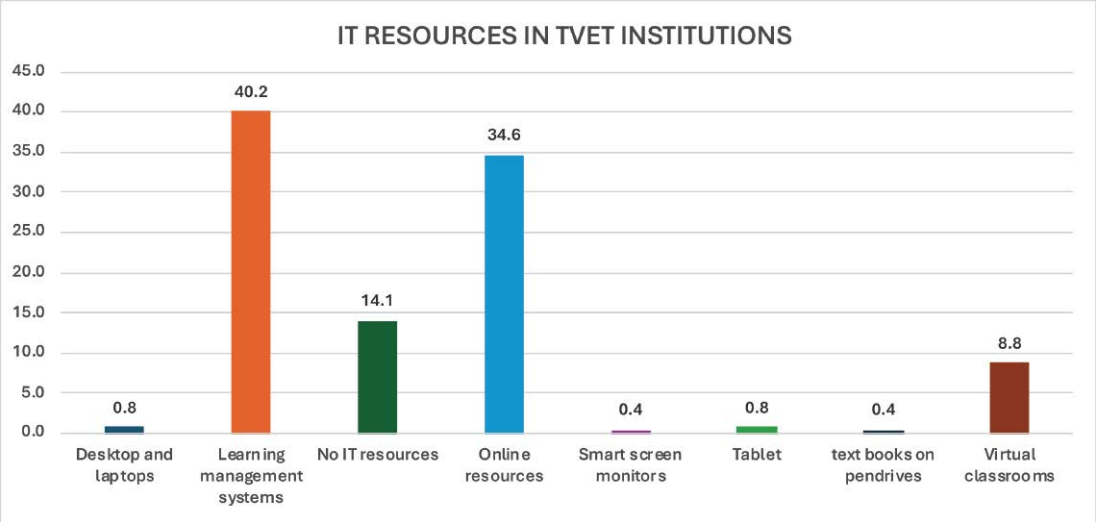
This chapter examines the state of digitalisation across TVET institutions, drawing on responses from institutions, facilitators, and learners. It assesses both the availability and effective utilisation of digital technologies, including digital tools and platforms, as well as access to critical enabling infrastructure such as reliable internet connectivity. The chapter further explores institutional capacity to support and sustain digital systems, alongside the extent to which digital technologies are integrated into teaching and learning processes. Overall, the analysis provides insights into current progress, identifies gaps, and highlights opportunities for strengthening digital transformation within the TVET system.

The analysis further explores the key challenges affecting digital transformation within the TVET system and assesses how they influence the preparedness of institutions, facilitators, and learners for a digital future.

7.1 IT RESOURCES IN TVET INSTITUTIONS

Beyond connectivity, the actual presence of functional digital tools and equipment within institutions provides a clearer picture of how prepared the system is to support technology-driven teaching and operations. The availability of digital tools and equipment is a key indicator of institutional readiness for digital transformation, as it directly supports both instructional delivery and administrative efficiency. Against this backdrop, the graph examines the level at which institutions are equipped with essential digital devices and technologies.

Figure 74: IT Resources in TVET Institutions



Source: CTVET Survey data, 2025.

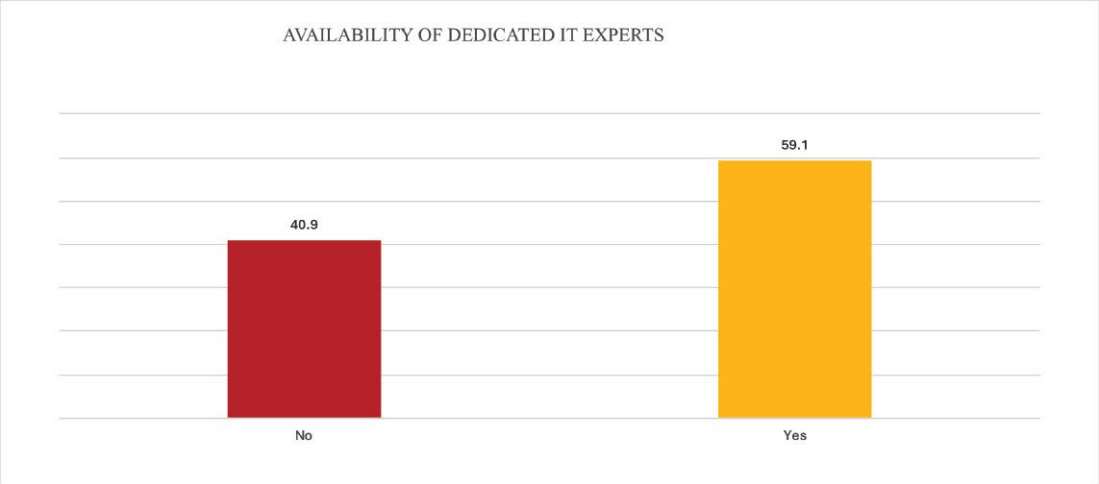
The findings indicate that Learning Management Systems (40.2%) are the most widely utilized digital tools within TVET institutions. This is followed by online resources (34.6%), suggesting a moderate level of engagement with structured digital content. However, 14.1% of institutions report that they do not have any digital platforms, highlighting a significant gap in digital adoption.

The use of more advanced or interactive technologies remains limited, with virtual classrooms accounting for 8.8%, while desktops and laptops (0.8%), tablets (0.8%), smart screen monitors (0.4%), and pen-drive-based materials (0.4%) are minimally utilized. This distribution reflects a digital environment that is largely dependent on basic and accessible platforms rather than advanced or immersive technologies. Overall, the pattern suggests that while digitalisation is present within institutions, it remains at a foundational level, with limited integration of advanced tools that support interactive and competency-based digital training.

7.1.1 Dedicated IT Experts in the Institutions

Institutional commitment plays a critical role in driving digital transformation through policies, investments, and leadership support. To ensure that digital systems function effectively, the role of technical support becomes increasingly important in addressing operational challenges and maintaining infrastructure. Accordingly, the graph examines the extent to which institutions provide support mechanisms to promote digitalisation.

Figure 75: Availability of dedicated IT Experts



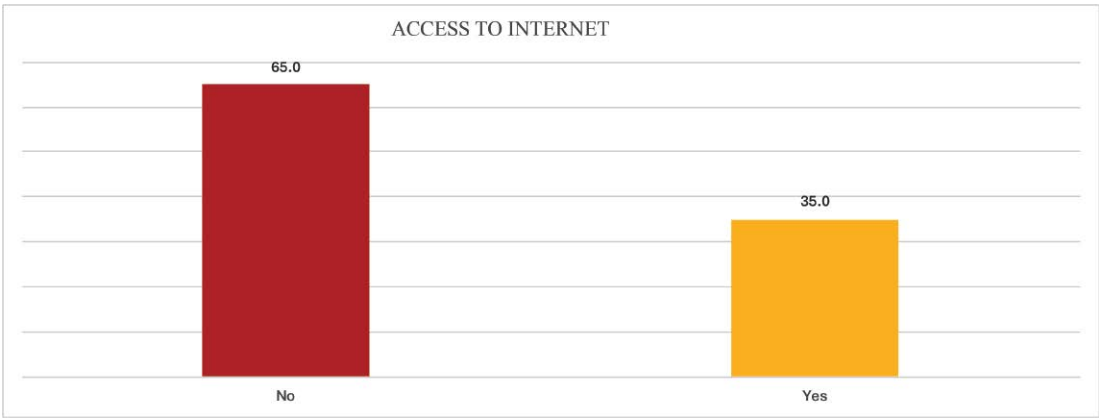
Source: CTVET Survey data, 2025.

The findings show that 59.1% of institutions have IT support teams responsible for maintaining digital tools, while 40.9% do not. Although most institutions have some level of technical support, the absence of such support in a significant proportion of institutions suggests operational challenges in sustaining digital systems. This indicates that even where digital tools are available, their effectiveness may be constrained by inadequate maintenance and technical expertise, potentially leading to underutilization or system inefficiencies.

7.1.2 Institutional access to the internet

Access to reliable internet connectivity remains fundamental to the digitalisation of TVET, as it enables institutions to utilize online platforms, access learning resources, and support digital communication. In this regard, the graph assesses the extent to which institutions have access to stable internet services to facilitate digital teaching, learning, and administration.

Figure 76: Access to internet



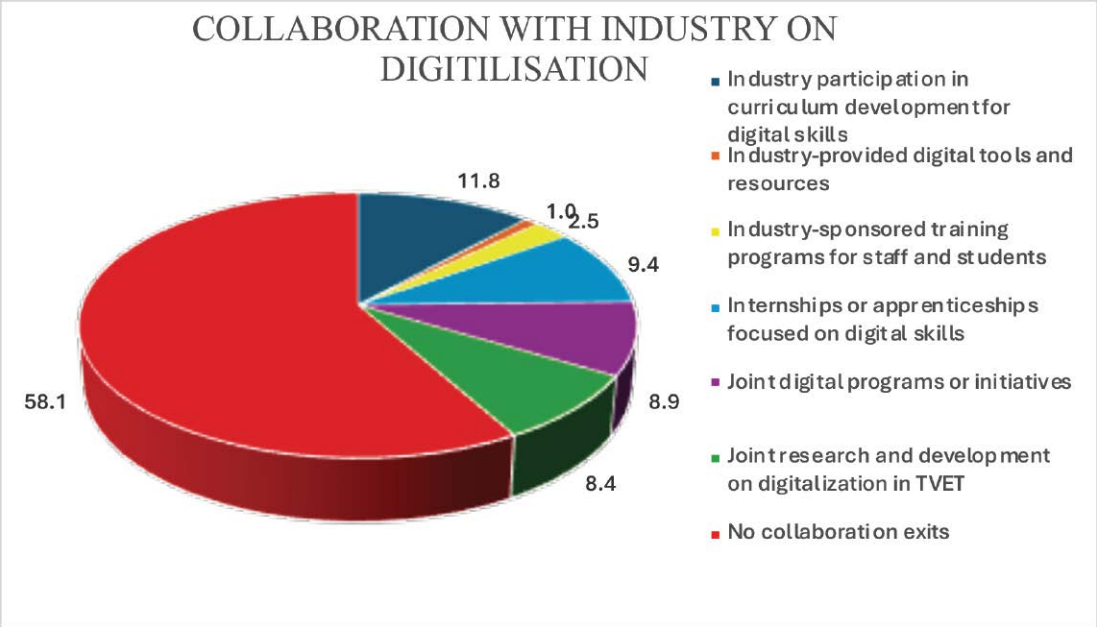
Source: CTVET Survey data, 2025.

The data reveal that 65.0% of institutions do not have access to internet connectivity, while only 35.0% report having access. This indicates that most institutions operate without reliable internet infrastructure. This pattern highlights internet connectivity as a critical constraint to digitalisation, as the absence of internet limits the functionality of digital platforms such as Learning Management Systems and online resources. Consequently, digital tools within these institutions are likely to be used in limited or offline capacities, reducing their effectiveness in enhancing teaching and learning.

7.2. INSTITUTIONAL COLLABORATION WITH INDUSTRY ON DIGITALIZATION

Collaboration among stakeholders is essential for advancing digitalisation through shared resources, expertise, and partnerships. Central to advancing these opportunities is the role of collaboration, where partnerships with industry, development partners, and other stakeholders help to strengthen digitalisation efforts across the sector. Accordingly, the graph assesses the forms of collaboration that exist to support digitalisation efforts.

Figure 77: Collaboration with Industry on Digitilisation



Source: CTVET Survey data, 2025.

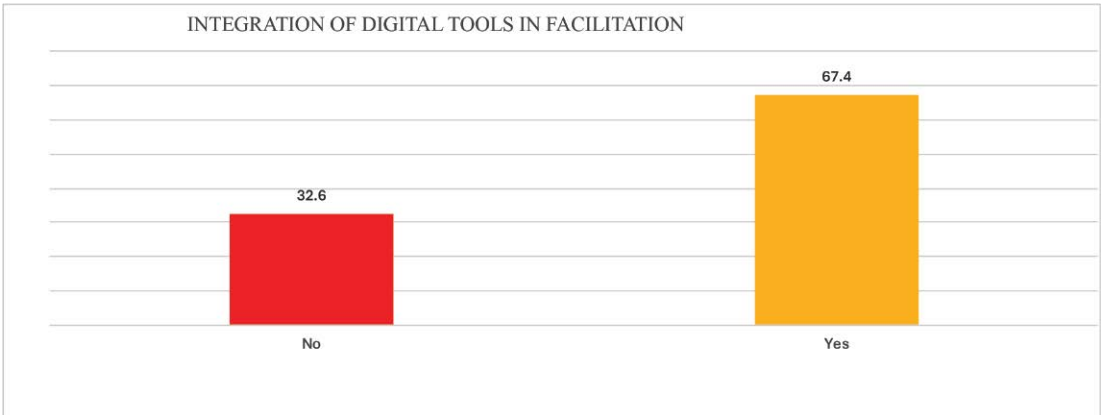
The findings indicate that 58.1% of institutions do not have any form of collaboration supporting digitalisation. Among institutions that reported collaboration, industry participation in curriculum development accounts for 11.8%, followed by internships or apprenticeships focused on digital skills (9.4%), joint digital programmes (8.9%), and joint research and development (8.4%).

Minimal collaboration is observed in industry-sponsored training programmes (2.5%) and provision of digital tools and resources by industry (1.0%). This distribution highlights a weak linkage between TVET institutions and industry in advancing digitalisation. The lack of collaboration limits institutions' access to modern technologies, industry expertise, and practical exposure necessary to align training with current digital trends.

7.3. INTEGRATION OF DIGITAL TOOLS IN FACILITATION

The incorporation of digital tools into training delivery reflects a more advanced stage of digitalisation, particularly in aligning training with modern industry practices. Effective digitalisation is largely dependent on the competencies of facilitators, particularly their ability to integrate technology into teaching. Within this scope, the graph evaluates the level of digital skills among facilitators in delivering technology-supported instruction. In this regard, the graph examines the extent to which digital technologies are integrated into training delivery.

Figure 78: Integration of digital tools in facilitation



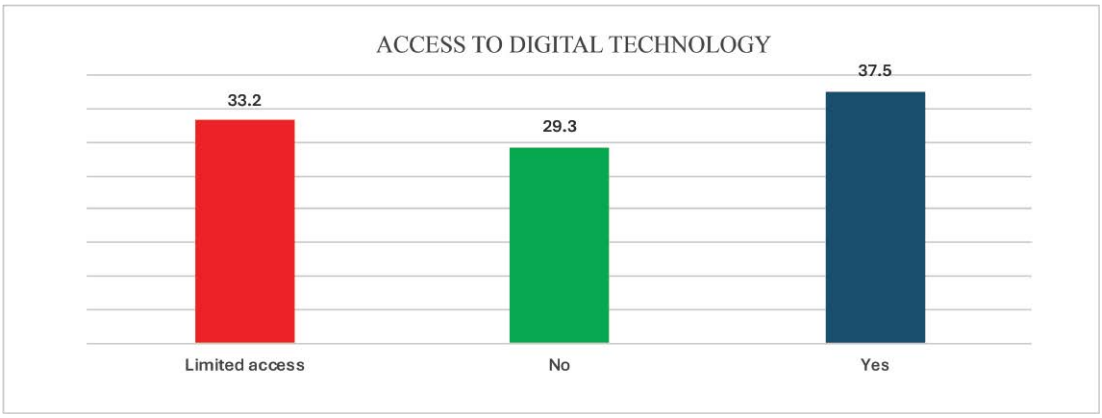
Source: CTVET Survey data, 2025.

The data shows that 67.4% of facilitators integrate digital tools and technologies into their teaching, while 32.6% do not. This indicates a relatively high level of adoption of digital tools among facilitators. However, considering the constraints identified at the institutional level, particularly in relation to infrastructure and internet access, this integration is likely to be basic and limited in scope. Facilitators may be using available tools in a supplementary manner rather than fully embedding digital technologies into instructional delivery. This suggests that while there is some willingness among facilitators to adopt digital tools, the effectiveness of their integration is constrained by systemic limitations.

7.4. LEARNERS' ACCESS TO DIGITAL TECHNOLOGY

Access to digital tools and equipment is a critical determinant of institutional readiness for digital transformation, as it influences how effectively both facilitators and learners can engage in technology-supported teaching, learning, and administrative activities. As digital learning environments continue to expand, meaningful access to these tools becomes essential for enhancing participation and improving learning outcomes. In this context, the graph assesses the extent to which learners and institutions can access the necessary digital tools required for effective engagement in digital learning processes.

Figure 79: Access to Digital Technology



Source: CTVET Survey data, 2025.

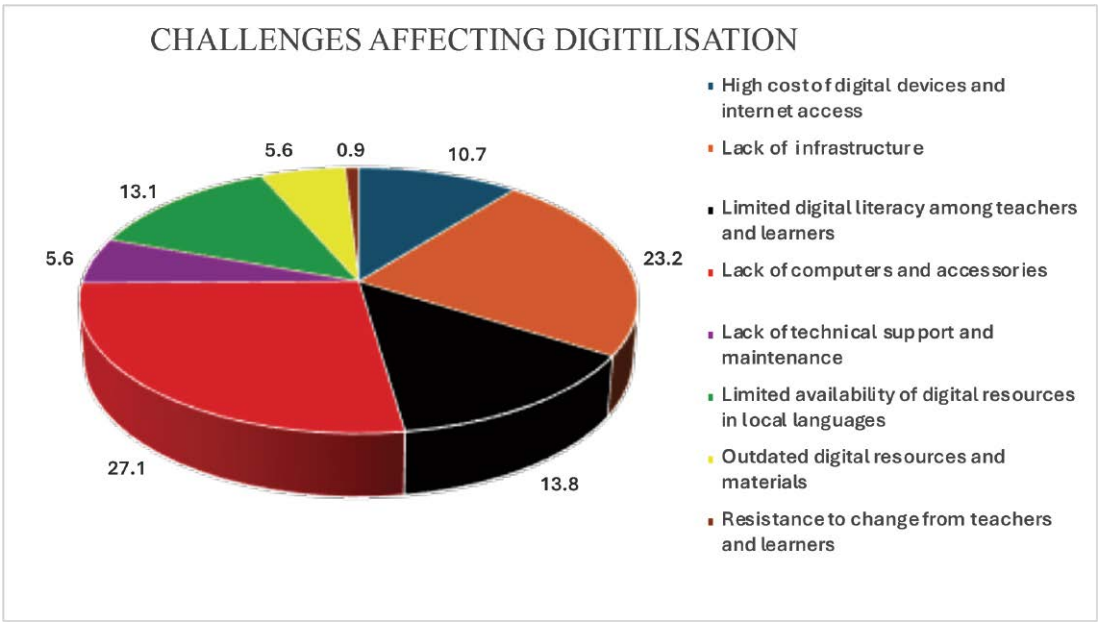
Further analysis reveals that 37.5% of learners have full access to digital tools, while 33.2% have limited access and 29.3% have no access. This indicates that most learners (62.5%) experience either limited or no access to digital tools.

This pattern highlights significant digital inequality within the TVET system, where access to digital learning resources is not uniformly distributed. Such disparities limit the ability of learners to fully participate in digital learning environments and acquire relevant digital skills.

7.5. CHALLENGES AFFECTING THE USE OF TECHNOLOGY

Despite the growing emphasis on digital transformation, several constraints continue to limit effective implementation across institutions. This means that the transition toward a fully digital system is not without challenges, as institutions continue to encounter various constraints that limit effective adoption and usage. Within this context, the graph identifies the key barriers affecting digitalisation in the TVET system.

Figure 80: Challenges affecting digitalisation



Source: CTVET Survey data, 2025.

The major challenges affecting digitalisation in institutions include limited access to devices (26.7%) and inadequate infrastructure (23.2%), which together represent the most significant barriers. Additional challenges include insufficient digital literacy among teachers and students (13.8%), limited availability of digital resources in local languages (13.1%), and the high cost of digital devices and internet access (10.7%). Other factors, such as lack of technical support and maintenance (5.6%) and outdated digital resources (5.6%), were also identified, while resistance to change (0.9%) and lack of ICT laboratories (0.4%) were reported at minimal levels.

This pattern indicates that the barriers to digitalisation are predominantly structural, resource-based, and behavioural. The relatively low level of resistance to change suggests that stakeholders are generally willing to adopt digital technologies but are constrained by limited resources and infrastructure.

7.6. DIGITALISATION AND THE FUTURE OF TVET

The future of TVET is increasingly dependent on the effective integration of digital technologies into training delivery, institutional systems, and learning processes. The findings suggest that while there is growing awareness and partial adoption of digital tools, the system is not yet fully prepared to meet the demands of a digital economy.

To remain relevant, TVET must transition from traditional training approaches to digitally integrated systems that support flexible learning, innovation, and industry alignment. This requires a comprehensive approach that combines infrastructure development, capacity building, and inclusive access to digital technologies.

A digitally transformed TVET system will be better positioned to:

- Respond to emerging labour market needs
- Enhance the quality and relevance of training
- Promote innovation and adaptability
- Ensure inclusive access to skills development opportunities

7.7. RECOMMENDATIONS TO DIGITALISE TVET

Based on the findings, the following recommendations are proposed to strengthen digitalisation within the TVET system:

1. Expansion of Digital Infrastructure
2. Improvement of Internet Connectivity
3. Strengthening IT Support Systems
4. Capacity Building for Facilitators
5. Promotion of Learner Digital Inclusion
6. Strengthening Industry Collaboration
7. Development of Localised Digital Content

Digitalisation within the TVET system is progressing but remains uneven and at a developmental stage. The findings reveal persistent gaps in infrastructure and connectivity, limited capacity among facilitators to fully utilise digital tools, and unequal access for learners. These challenges highlight a disconnect between the availability of technology, the ability to use it effectively, and equitable access across the system. To address this, a coordinated and system-wide approach is required, one that simultaneously strengthens infrastructure, builds human capacity, and improves learner access. Advancing digitalisation in this way will be essential to ensuring that TVET remains relevant, inclusive, and responsive to the demands of a rapidly evolving digital economy.

CHAPTER 8
TVET FINANCING

8.0. INTRODUCTION

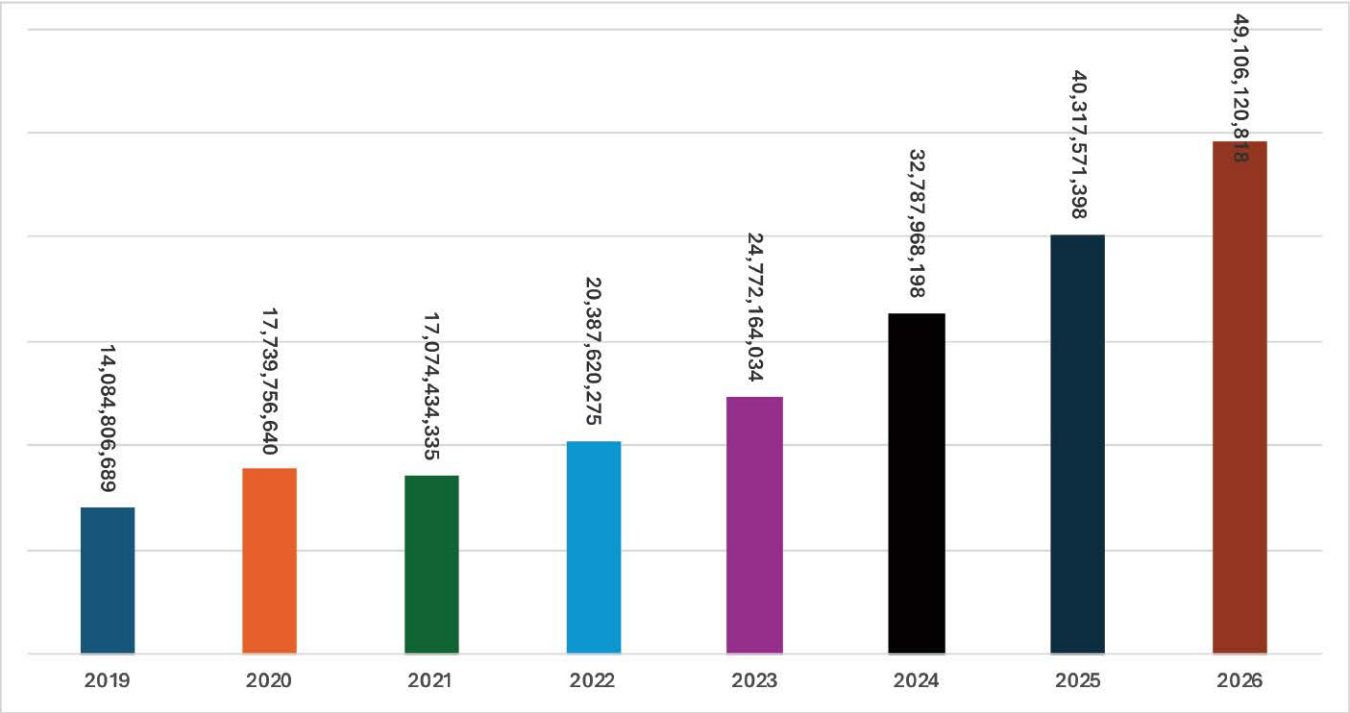
Financing is a fundamental enabler of an effective and sustainable TVET system. It directly affects the quality of training delivery, the availability of infrastructure and equipment, access to programmes, and overall learning outcomes. In Ghana, strengthening TVET financing is critical to achieving national goals in industrialisation, job creation, and economic development. The TVET financing landscape in Ghana is characterised by a multi-source funding structure comprising Government of Ghana (GoG) budgetary allocations, statutory funds such as the GETFund, development partner support, private-sector contributions, and household financing. Analysis of recent budget trends indicates that, although the government remains the dominant source of funding, allocations fluctuate over time, and resources are often insufficient to meet the growing demand for quality skills training.

Despite ongoing reforms and targeted interventions, including the Ghana TVET Voucher Project (GTVP) and the Ghana Jobs and Skills Project (GJSP), financing constraints continue to impede infrastructure development, equipment modernisation, and programme expansion. Ensuring adequate, predictable, and efficient use of financing is therefore essential to sustain improvements in TVET access, quality, and relevance.

Budgetary Allocation to the Ministry of Education

Public investment in education is a key determinant of education system performance, shaping access, quality, infrastructure development, and human capital outcomes. Understanding trends in the total education budget provides critical context for analysing the resources available to the TVET sector within the broader education system. The next figure shows the annual total education budget allocation from 2019 to 2025, highlighting year-on-year changes in budget levels, shifts in public expenditure on education, and the sector's overall growth trajectory.

Figure 81: Budgetary Allocation to Ministry of Education (2019–2026)



Source: Ministry of Education data, 2026.

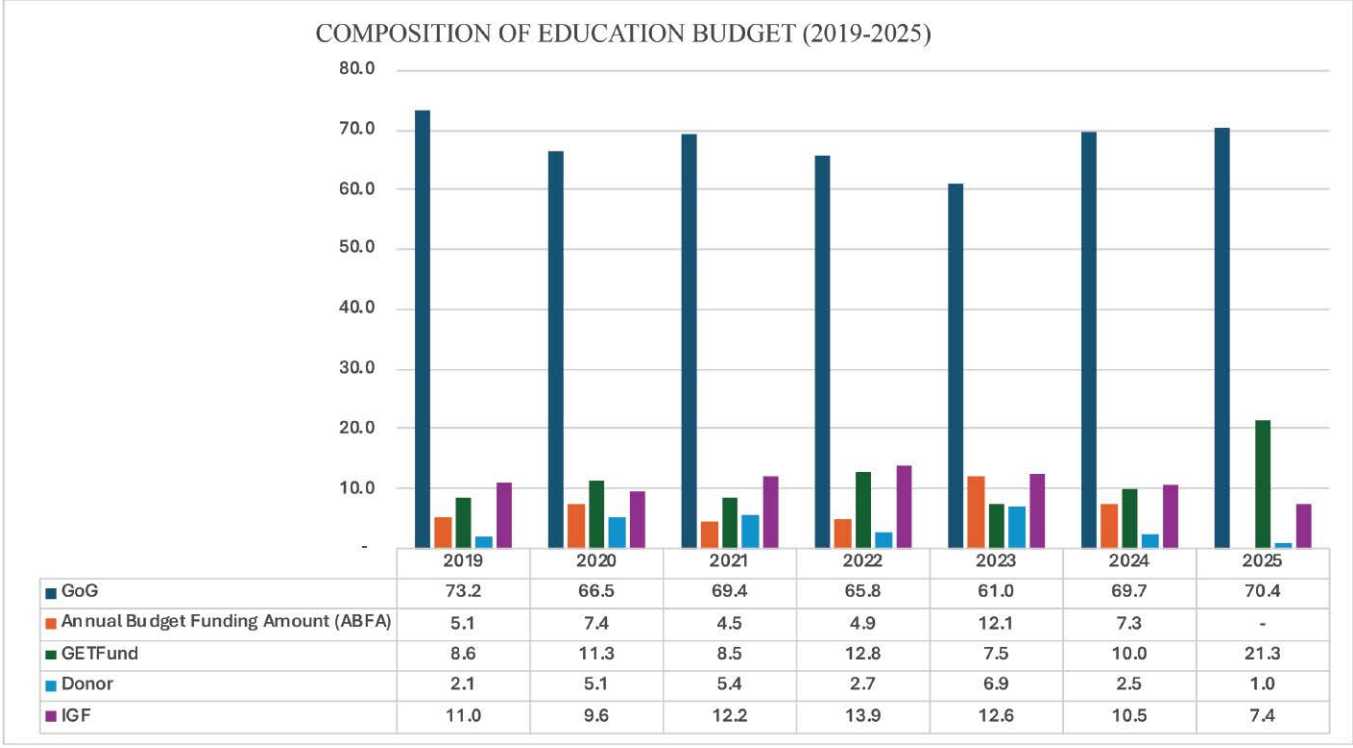
The findings indicate a consistent upward trend in the total education budget over the period, rising from approximately GHS 14.08 billion in 2019 to about GHS 49.11 billion in 2026, a more than threefold increase. The budget rose from GHS 17.74 billion in 2020 to GHS 17.07 billion in 2021, reflecting a slight dip, before increasing steadily to GHS 20.39 billion in 2022 and GHS 24.77 billion in 2023. This upward trajectory accelerated significantly from 2024 (GHS 32.79 billion) to 2025 (GHS 40.32 billion) and continued through to 2026 (GHS 49.11 billion).

Overall, the trend suggests a strong and growing government commitment to education financing, particularly in recent years. However, while total education funding has expanded substantially, the key policy question remains the proportion allocated to TVET, as increases in aggregate funding do not automatically translate into adequate investment in skills development. This underscores the importance of analysing budget prioritisation and allocation efficiency within the education sector to ensure that TVET receives sufficient resources to meet its growing demands.

8.1. COMPOSITION OF EDUCATION BUDGET

Understanding the composition of education financing is essential for assessing sustainability, efficiency, and equity in the sector. The distribution of funding sources reveals the level of government commitment, the role of statutory funds, and the extent of reliance on external and internally generated funds. The figure shows the percentage share of education funding sources from 2019 to 2025, including the Government of Ghana (GoG), Annual Budget Funding Amount (ABFA), GETFund, donor support, and Internally Generated Funds (IGF), indicating the relative contributions of each source over time.

Figure 82: Composition of Education Budget



	2019	2020	2021	2022	2023	2024	2025
GoG	73.2	66.5	69.4	65.8	61.0	69.7	70.4
Annual Budget Funding Amount (ABFA)	5.1	7.4	4.5	4.9	12.1	7.3	-
GETFund	8.6	11.3	8.5	12.8	7.5	10.0	21.3
Donor	2.1	5.1	5.4	2.7	6.9	2.5	1.0
IGF	11.0	9.6	12.2	13.9	12.6	10.5	7.4

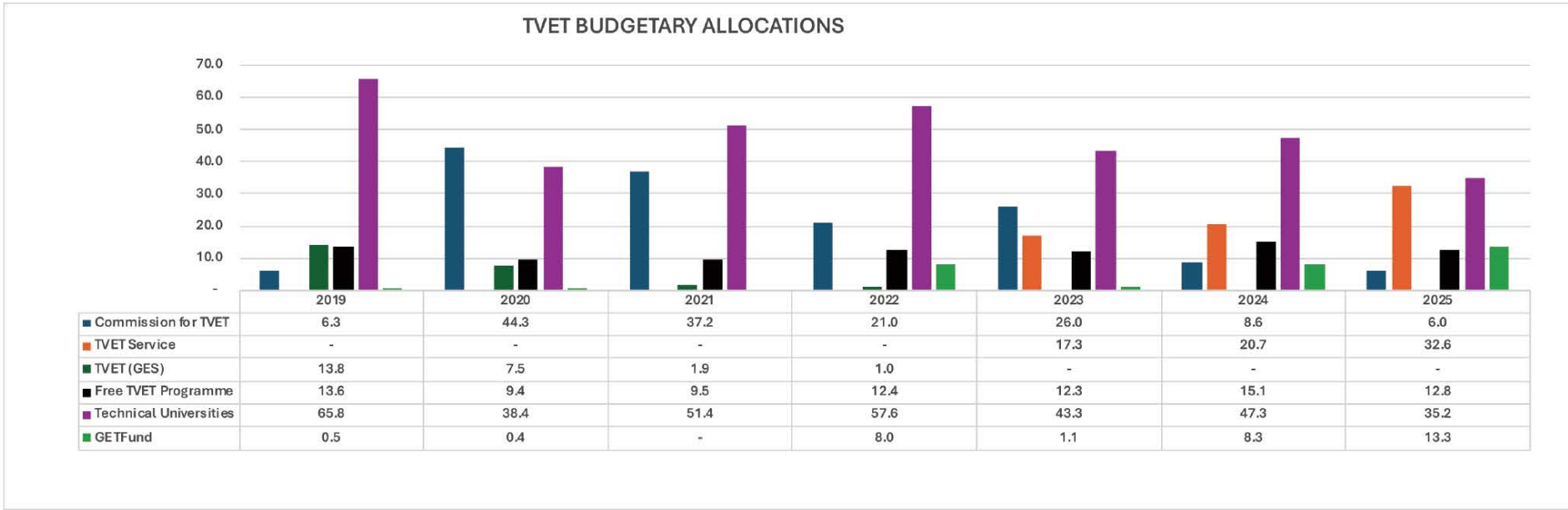
Source: Ministry of Education data, 2026.

The findings show that the Government of Ghana (GoG) remains the dominant source of education financing, contributing between 61.0% and 73.2% over the period, with fluctuations, including a decline to 61.0% in 2023 before increasing to 70.4% in 2025. GETFund is the second most significant source, with contributions ranging from 7.5% to 21.3%, peaking in 2025 and reflecting its critical role in infrastructure financing. Internally Generated Funds (IGF) remain relatively stable, ranging from 7.4% to 13.9%, indicating continued reliance on institutional-level financing. ABFA contributions fluctuate and remain moderate, peaking at 12.1% in 2023, while Development partners' funding remains low and inconsistent, ranging from 1.0% to 6.9%, indicating limited external financing. The results indicate heavy reliance on domestic public financing, particularly GoG, complemented by statutory funds, while external and alternative funding sources play a smaller, less stable role. This highlights the need to strengthen diversified and sustainable financing mechanisms to support long-term growth and resilience in the education and TVET sectors.

TVET Budgetary Allocations

Allocating the TVET budget across key institutions and programmes offers critical insight into government priorities, resource distribution, and the balance among training delivery, regulation, and infrastructure development. Analysing these allocation patterns is essential to understanding how financial resources support the effectiveness, equity, and sustainability of the TVET system. This TVET budget covers major spending areas from 2019 to 2025. The figure below illustrates the proportion of the TVET budget allocated to key components, including the Commission for TVET, TVET Service, TVET (GES), Free TVET Programme, Technical Universities, and GETFund, revealing shifts in funding priorities and the relative share of each component within the TVET financing structure.

Figure 83: TVET Budgetary Allocations



	2019	2020	2021	2022	2023	2024	2025
Commission for TVET	6.3	44.3	37.2	21.0	26.0	8.6	6.0
TVET Service	-	-	-	-	17.3	20.7	32.6
TVET (GES)	13.8	7.5	1.9	1.0	-	-	-
Free TVET Programme	13.6	9.4	9.5	12.4	12.3	15.1	12.8
Technical Universities	65.8	38.4	51.4	57.6	43.3	47.3	35.2
GETFund	0.5	0.4	-	8.0	1.1	8.3	13.3

Source: Ministry of Education data, 2026.

The analysis shows that Technical Universities consistently receive the largest share of TVET funding, ranging from 35.2% to 65.8%, indicating a strong emphasis on tertiary-level technical education. However, this share has been declining over time, particularly from 65.8% in 2019 to 35.2% in 2025, suggesting a gradual redistribution of resources. The Commission for TVET (CTVET) peaked in 2020 (44.3%), then declined steadily to 6.0% in 2025, reflecting reduced allocation to regulatory and coordination functions. Notably, the TVET Service emerges from 2023 onwards, with allocations rising from 17.3% in 2023 to 32.6% in 2025, signalling a strategic shift towards strengthening pre-tertiary TVET delivery and institutional management.

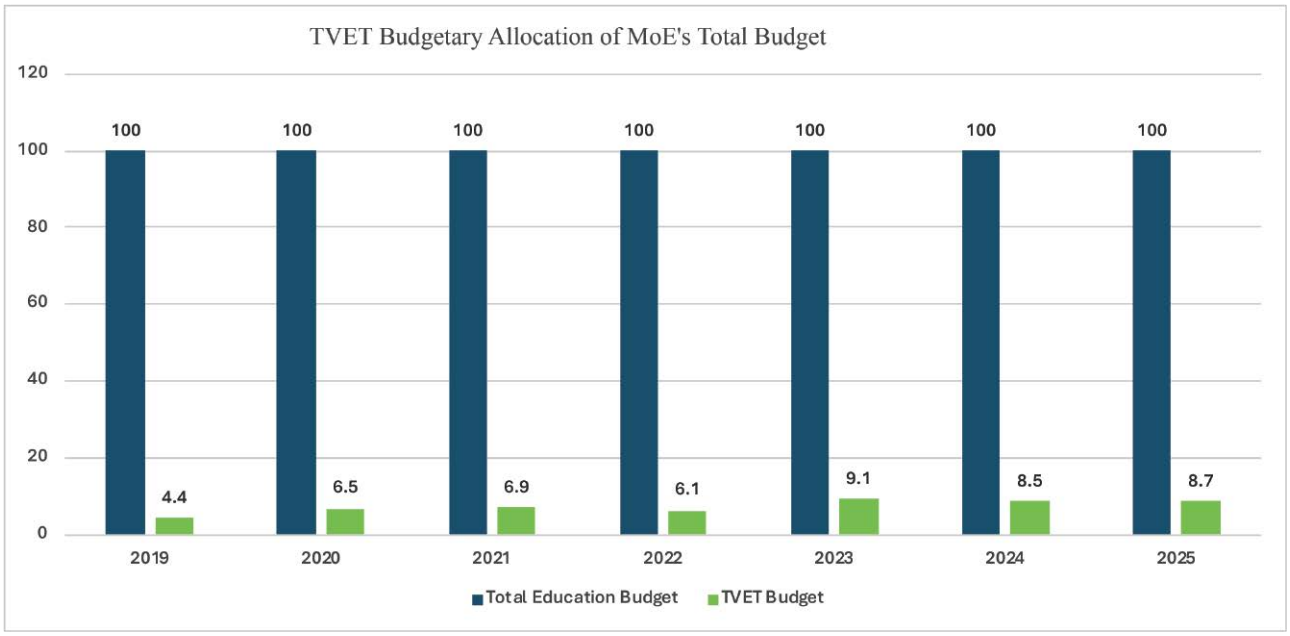
The Free TVET Programme maintains a relatively stable share, ranging between 9.4% and 15.1%, demonstrating sustained government commitment to access. In contrast, GETFund allocations remain low and inconsistent, despite a rise to 13.3% in 2025, highlighting limited and fluctuating investment in infrastructure. Meanwhile, TVET (GES) allocations decline sharply over time and phase out after 2022, reflecting structural reforms in the governance of pre-tertiary TVET. Overall, the results indicate a readjustment of TVET financing priorities, with increasing

emphasis on service delivery and access, whilst funding for regulation, infrastructure and system-wide quality assurance decreases.

8.3.1. Comparative analysis of the Ministry of Mducation Mudget to TVET Budget Allocation

A comparative analysis of the Ministry of Education (MoE) budget and its allocation to the TVET sector is essential for assessing the level of prioritisation of skills development within the broader education system. While overall education spending reflects government commitment to human capital development, the proportion allocated to TVET determines the sector's capacity to deliver quality, industry-relevant training, expand access, and support economic transformation. This section examines trends in the MoE budget relative to TVET allocations, highlighting shifts in funding priorities, the adequacy of resources for the TVET sector, and the implications for equity, efficiency, and the long-term sustainability of skills development.

Figure 84: TVET Budgetary Allocation of MOE's Total Budget (2019 - 2025)



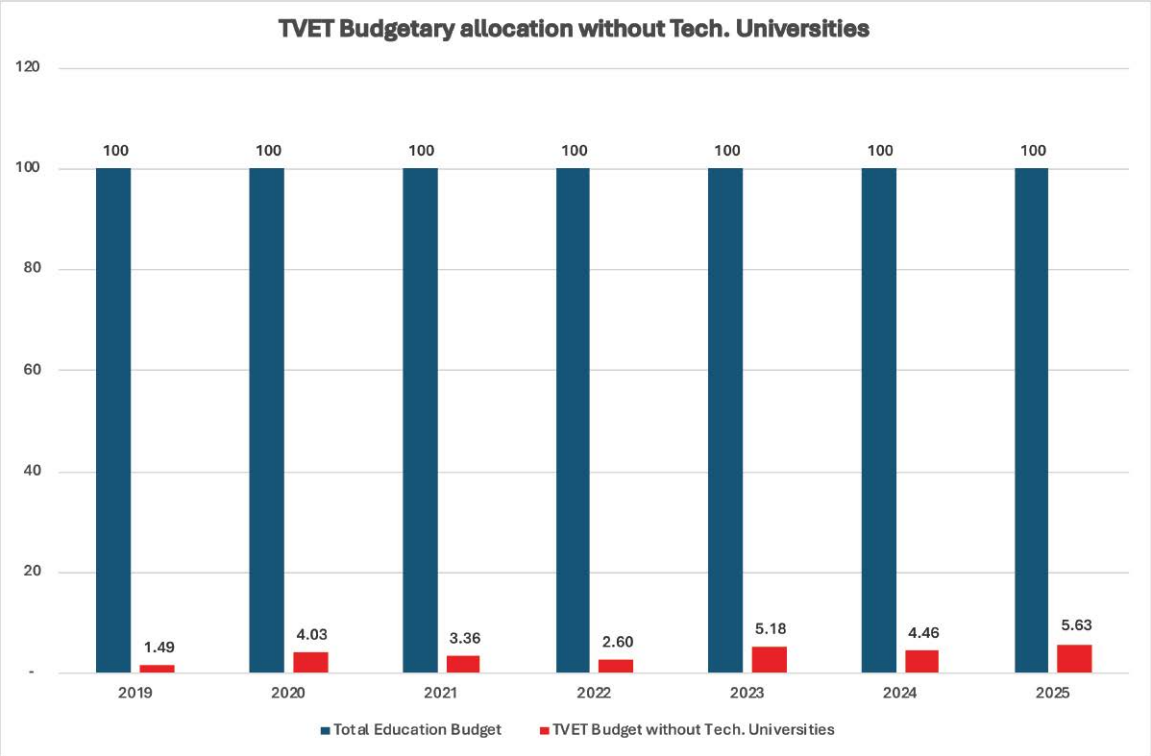
Source: Ministry of Education data, 2026.

The analysis revealed that the share of the education budget allocated to TVET generally increased between 2019 and 2026, although with some fluctuations over the period. In 2019, TVET received 4.4% of the total education budget, which increased to 6.5% in 2020 and 6.9% in 2021, reflecting growing recognition of the importance of skills development within the education sector. However, the allocation declined slightly to 6.1% in 2022, suggesting a temporary reduction in prioritisation. The share rose significantly to 9.1% in 2023, representing the highest level during the period. Although the allocation decreased slightly to 8.5% in 2024, it remained relatively high compared to earlier years. The share increased again to 8.7% in 2025 before declining moderately to 7.0% in 2026, indicating that while the overall trend points to increased attention to TVET financing, the allocation has not been entirely consistent across the years

8.3.2. TVET Budgetary allocation without Tech. Universities

Financing is a critical determinant of the effectiveness and sustainability of TVET systems. While overall allocations to TVET are important, it is equally essential to examine how resources are distributed across subsectors. This figure focuses on the share of the education budget allocated to TVET, excluding Technical Universities, thereby providing insight into the level of investment directed towards pre-tertiary TVET, skills training institutions, and system-wide delivery mechanisms. It compares the total education budget (set at 100%) with the share allocated to TVET, excluding Technical Universities, over the period 2019 to 2025. The TVET share is presented as a percentage of the total education budget, highlighting trends in resource allocation across the broader TVET system, not just at the higher-level technical education level.

Figure 85: TVET Budgetary Allocation (Excluding Technical Universities)



Source: Ministry of Education data, 2026.

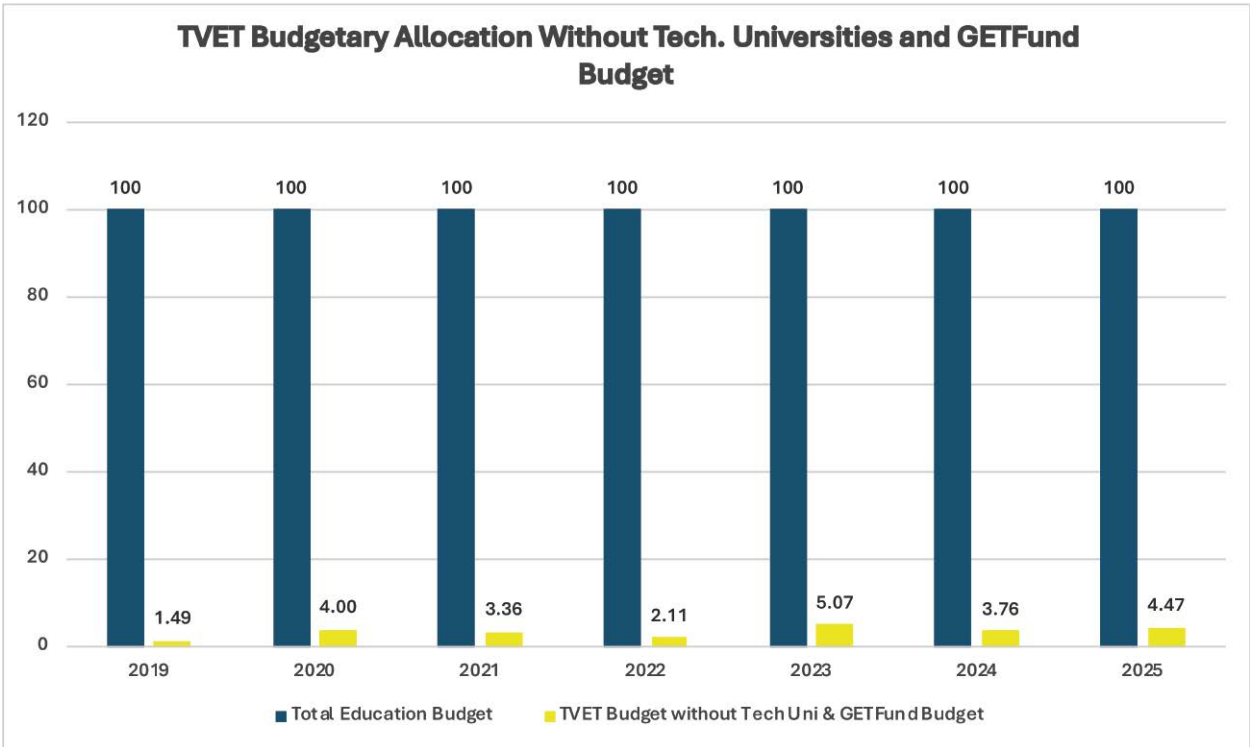
The findings show that the share of the education budget allocated to TVET, excluding Technical Universities, remains relatively low throughout the period, with gradual increases over time. The allocation rises from 1.49% in 2019 to 4.03% in 2020, then declines to 3.36% in 2021 and further to 2.60% in 2022. From 2023 onwards, the share increases more consistently, reaching 5.18% in 2023, 4.46% in 2024, and peaking at 5.63% in 2025. Overall, the trend indicates modest growth in funding for non-tertiary TVET; however, the share remains relatively small compared with the total education budget, suggesting that the majority of resources are still concentrated in other segments of the education system, particularly higher education.

The observed trends have several important implications, including underinvestment in pre-tertiary and institutional TVET delivery, which may limit the quality and reach of skills training programmes; an imbalance in resource allocation, with a significant share of TVET funding concentrated in Technical Universities rather than at the foundational and intermediate training levels; constraints on infrastructure development, equipment provision, and learner support systems, which are essential for competency-based training; potential impacts on equity and access, particularly for learners who depend on non-tertiary TVET pathways; and limited capacity to scale TVET reforms, including digitalisation, greening, and industry-aligned training. However, the relatively low share of funding allocated to TVET outside Technical Universities highlights the need for a more balanced and strategic financing approach. Increasing investment in pre-tertiary TVET institutions, skills training centres, and system-wide delivery mechanisms will be essential for strengthening the foundation of Ghana's skills development system and ensuring inclusive, quality TVET delivery aligned with national development priorities.

8.3.3. TVET Budgetary Allocation (Excluding Technical Universities and GETFund)

Understanding the true level of investment in TVET requires disaggregating funding by component. While Technical Universities and GETFund allocations account for significant shares of TVET financing, it is important to assess the residual allocation to the core TVET delivery system, particularly pre-tertiary institutions, regulatory functions, and operational support. The figure shows the share of the education budget allocated to TVET, excluding Technical Universities and GETFund, providing a clearer picture of direct investment in Ghana's foundational TVET system. It compares the total education budget (standardised at 100%) with the percentage allocated to TVET, excluding both Technical Universities and GETFund, over the period 2019 to 2025. This highlights trends in funding directed towards the core TVET system, including institutional delivery, administration, and programme implementation.

Figure 85: TVET Budgetary Allocation (Excluding Technical Universities)



Source: Ministry of Education data, 2026.

The findings show that the share of the education budget allocated to TVET, excluding Technical Universities and GETFund, remains consistently low throughout the period, despite some fluctuations. The allocation begins at 1.49% in 2019, rises to 4.00% in 2020, and then declines slightly to 3.36% in 2021. It then drops to 2.11% in 2022, rises to 5.07% in 2023, declines to 3.76% in 2024, and rises moderately to 4.47% in 2025. Overall, while there are periods of improvement, the share remains below 6% across all years, indicating that a relatively small portion of the education budget is directed towards the core TVET system when major capital and tertiary allocations are excluded.

The observed trends have critical implications for TVET financing in Ghana. This includes severe underinvestment in core TVET delivery systems, such as pre-tertiary institutions and operational functions, and an over-concentration of funding in Technical Universities and capital expenditure (GETFund), leaving limited resources for day-to-day training delivery.
It also includes:

- constraints on quality TVET provision, particularly in equipment, consumables,
- inadequate instructor capacity and learner support;
- limited ability to scale reforms, including competency-based training, digitalisation, and industry alignment initiatives;
- and the potential widening of inequality, as underfunded institutions struggle to deliver consistent training quality.

The persistently low allocation to TVET, excluding Technical Universities and GETFund, highlights a critical financing gap within Ghana's skills development system. Addressing this imbalance will require a more strategic and equitable allocation of resources, with increased investment directed towards core TVET delivery, institutional capacity, and quality assurance mechanisms to ensure that the system can effectively meet national skills and employment demands.

8.4. POLICY RECOMMENDATIONS AND WAY FORWARD

To strengthen TVET financing and ensure sustainable TVET financing, the following policy actions are recommended:

- Establishment of a TVET Fund
- Introduce and strengthen industry co-financing through structured partnerships and incentives
- Expand targeted financial support (scholarships, vouchers) for disadvantaged learners
- Increase public investment in infrastructure and equipment.

CHAPTER 9

INTERNATIONAL CO-OPERATION & PARTNERSHIP

9.0. INTRODUCTION

International co-operation has become a central pillar of Ghana's TVET transformation, underpinning efforts to improve quality, relevance, inclusivity, and environmental sustainability across the sector. In line with the mandate of the CTVET under the Education Regulatory Bodies Act, 2020 (Act 1023), strategic partnerships with bilateral and multilateral development partners have significantly strengthened the TVET ecosystem's institutional, technical, and operational capacity. These collaborations have enabled Ghana to draw on global expertise, mobilize financial and technical resources, and align national skills development priorities with international best practices and frameworks, including the Sustainable Development Goals (SDGs), climate action commitments, and the evolving demands of the global labour market.

The international cooperation landscape in Ghana's TVET sector is characterized by a coordinated, multi-stakeholder approach involving key development partners, including GIZ, the World Bank, KfW Development Bank of Germany, the African Development Bank, UNESCO, UNICEF, the Italian Agency for Development Cooperation (AICS), the International Labour Organization (ILO), and other bilateral and philanthropic institutions. Through flagship programmes such as the Pact for Skills, the Ghana Jobs and Skills Project, BEAR III, ACTIVATE, and other Erasmus+ and bilateral initiatives, partners have supported a wide range of interventions spanning policy development, Competency-Based Training (CBT) implementation, curriculum reform, infrastructure development, digitalisation, green skills integration, and private-sector engagement. These interventions not only address immediate skills gaps but also contribute to long-term systemic reforms to position TVET as a driver of industrialization, employment creation, and economic resilience.

A defining feature of these partnerships is their strong alignment with Ghana's national development agenda, particularly the ongoing TVET transformation reforms aimed at expanding access, improving quality, strengthening industry linkages, and promoting evidence-based policymaking.

This chapter provides an in-depth overview of the scope, nature, and impact of international cooperation within Ghana's TVET sector. It examines key development partner interventions, their strategic focus areas, implementation progress, and contributions to national priorities. It also highlights emerging trends, challenges, and opportunities to strengthen coordination, sustainability, and ownership of externally supported initiatives. Ultimately, the chapter underscores the critical role of international partnerships in accelerating Ghana's transition towards a modern, industry-driven, and globally competitive TVET system.

Collaboration with KfW Development Bank of Germany

The Project objective is to improve the target group's access to demand-oriented TVET, which meets quality criteria. It also aims at improving access to decent employment. The Ghana TVET Voucher Project (GTVP) is a product of the collaboration between CTVET and KfW Development Bank.

The beneficiaries of the Ghana TVET Voucher Project are the owners of small and medium enterprises of the informal sector (the Master Craft Persons) as well as their workers and apprentices operating the following Trade Areas: Automotive Repairs, Block Laying/Tiling, Catering and Hospitality, Construction/Welding, Consumer Electronics, Cosmetology/Hairdressing, Electrical Installation, Furniture Making, Garment Making and Plumbing.

The project is currently operating in: Ahafo, Ashanti, Bono East, Brong Ahafo, Central, Eastern, Greater Accra, North East, Northern, Oti, Savannah, Upper East, Upper West, Volta, Western, and Western North regions.

The GTVP has trained close to forty thousand learners to acquire skills through apprenticeships. (Phase I &II trained: 19,027, whilst Phase IV is doing 19,927 Apprentices)

The project is also involved with Recognition of Prior Learning (RPL) and has committed a total of 3,032 MCPs to be part of it. 2,256 of these MCPs participating in the RPL are undergoing Gap Training. (GTVP Quarterly Progress Report No. 06)

Collaboration with GIZ/EU

The Pact for Skills Project: "Support to the Transformation of the TVET System in Ghana", implemented by GIZ with funding from the German Government and the European Union is GIZ's flagship project..

The Project is grouped under five broad output areas and these are:

- **Output 1:** The information technology and planning capacities of the state TVET actors for steering of the TVET system are improved
- **Output 2:** The competences of TVET staff for the application of competency-based training are strengthened
- **Output 3:** The engagement of the private sector in the TVET system is enhanced
- **Output 4:** In selected regions of Ghana, selected TVET schools have expanded their green educational offerings
- **Output 5:** The institutional and personnel capacities of selected representatives of the TVET system for the implementation of the digital transformation of the vocational education and training system have been strengthened.

Under Output 1, which focuses on strengthening the information technology and planning capacities of state TVET actors, notable strides have been made in developing and piloting compliance and enforcement tools, alongside widespread sensitization of public and private training providers to Competency-Based Training (CBT) implementation standards. There is also the development of a draft National TVET Policy, development of policy guidelines for Institutional Production Units (IPUs), tracer studies, and capacity building in project management and quality assurance.

Output 2 highlights substantial achievements in strengthening the competencies of TVET personnel in CBT delivery. The training of over 1,000 TVET teachers and more than 400 in-company trainers, together with the graduation of facilitators with Certificates of Competency and Diplomas in CBT, represents a significant expansion of pedagogical capacity within the system. The Institute for Competency-Based Training and Research (ICBTR) at USTED has been particularly instrumental, serving as a national hub for CBT capacity development.

In advancing Output 3, the project has made considerable progress in deepening private-sector engagement and the enrolment of more than 1,100 learners in CBT programmes in priority sectors such as Building Construction and Recycling Technology, demonstrating tangible progress in aligning training with industry needs.

Output 4 reflects the successful development and accreditation of a green CBT curriculum in Recycling Technology, together with the designation of Dabokpa, Kumasi, and Takoradi Technical Institutes as Green Model Schools. The partnership with Jospong Group, reinforces the relevance and practical orientation of these programmes.

The progress under Output 5 underscores the growing importance of digital transformation in the TVET sector. The establishment of EdTech infrastructure, strategic frameworks and staff capacity-building in emerging technologies collectively signal a transition towards a more technology-enabled TVET system.

Collaboration with World University Service Of Canada (WUSC)

The EMPLOY Project aims at enhancing economic empowerment, well-being, and labour market participation of young women in Ghana. This intervention builds on the successes of the INVEST Project, which supported over 5,000 young women in sectors such as construction, energy, automotive, manufacturing, and extractives through access to competency-based training (CBT), internships, and employment pathways, while also addressing socio-cultural barriers and negative perceptions surrounding women in non-traditional trades.

The EMPLOY Project adopts a systems-strengthening approach by supporting training providers to improve the quality and relevance of programmes, creating gender-responsive learning environments, and strengthening school-to-work transitions through industry partnerships, in alignment with Ghana's demand-driven TVET reforms. It also engages employers to promote inclusive recruitment and retention practices, while driving attitudinal change across industry and society.

Complementing this is the USD 47 million ACTIVATE Programme, also led by WUSC in collaboration with local partners, which seeks to strengthen Agriculture TVET (ATVET) systems nationwide by improving curriculum relevance, institutional capacity, industry linkages, and employability outcomes for over 80,000 beneficiaries, particularly women. The programme aligns closely with CTVET's mandate under Act 1023 to regulate, promote, and administer TVET, and supports key reforms including curriculum development, accreditation, workplace experience learning (WEL), recognition of prior learning (RPL), gender-responsive pedagogy, and data-driven policy development, thereby reinforcing Ghana's transition towards an inclusive, industry-led, and globally competitive TVET system.

Collaboration with UNESCO Ghana

The Better Education for Africa's Rise Project – Phase III (BEAR III) project, for instance, not only supports curriculum development and trainer capacity building but also addresses the perception of TVET, positioning it as an attractive and viable career pathway for young people.

BEAR III specifically represents a significant continental initiative aimed at strengthening Technical and Vocational Education and Training (TVET) systems across West Africa, with Ghana as a key beneficiary alongside Côte d'Ivoire, Nigeria, and Sierra Leone. Implemented over the period 2023 to 2027, the project seeks to enhance the employability prospects of young people by improving their access to decent employment opportunities and supporting pathways to sustainable self-employment through systemic reforms in TVET delivery.

At its core, BEAR III focuses on promoting sustainable and long-term improvements in the quality, relevance, and attractiveness of TVET systems in participating countries. The project places strong emphasis on aligning training provision with labour market demands, strengthening institutional capacity, and enhancing the competencies of TVET facilitators and institutions. Through targeted interventions such as curriculum development, training of trainers, and the integration of industry-relevant skills into training programmes, BEAR III is contributing to the transformation of TVET into a demand-driven and future-oriented system capable of responding to evolving economic needs.

Overall, the BEAR III project underscores the importance of international cooperation in building resilient and responsive TVET systems in Africa. Its integrated approach—combining capacity building, curriculum reform, and stakeholder engagement—continues to contribute significantly to Ghana's efforts to develop a skilled, employable, and entrepreneurial workforce capable of supporting inclusive and sustainable economic growth.

Collaboration with the Italian Agency for Development Cooperation (AICS)

The collaboration with AICS is on three fronts:

a. The "Revitalizing Institutions for Skills Enhancement in Ghana)" RISE-G project,

b. the Sustainable Education and Entrepreneurship (SEE) Project

c. the "Implementing New Solutions for the Professional Integration of Human Resources in the Entrepreneurial Ecosystem in Ghana" (I.N.S.P.I.R.E).

The RISE-G project aims to procure, supply, and install state-of-the-art tools and equipment while delivering comprehensive capacity-building programmes at selected TVET institutions across six regions in Ghana. By modernizing these institutions, the initiative will bridge critical gaps in technical and vocational education, ensuring that training is industry-relevant, future-focused, and aligned with Ghana's economic transformation goals. Instructors receives specialized training on the operation, maintenance, and pedagogical application of advanced tools, fostering interactive and competency-based learning approaches.

The project also integrates apprenticeship and workplace-based learning (WEL) models, allowing students to gain practical experience and develop employability skills that meet labour market demands. A strong emphasis is placed on inclusive education, ensuring that persons with disabilities, women, and other marginalized groups benefit from enhanced access to skills training. This includes infrastructure upgrades for accessibility, assistive technologies, and tailored instructional methodologies to support diverse learning needs.

To further strengthen industry engagement and employability outcomes, the project establishes structured partnerships with private sector stakeholders, leveraging employer input to co-develop training curricula and expand job placement programs.

The "Sustainable Education and Entrepreneurship" (SEE) Project: The SEE Project aims to ensure inclusive and equitable quality education for all to promote full employment in Ghana, providing technical and entrepreneurial skills aligned with the labour market needs for decent employment for youth and adults in the target areas (Greater Accra, Bono, Western, and Northern Regions).

The expected results are as follows:

1. The training offer is promoted and improved through the strengthening of technical and teaching quality, and the digitalisation of vocational education and training.
2. The VET ecosystem is strengthened through the enhancement of career guidance services and support for school-to-work transition.
3. Innovative and sustainable entrepreneurship is fostered through the development of an entrepreneurial mindset, support for business creation within vocational training centres (VTCs), and the consolidation of small and medium-sized enterprises (SMEs) within the VET system.

This project is funded by the Italian Agency for Development Cooperation (AICS) and implemented by a consortium coordinated by Volontariato Internazionale per lo Sviluppo (VIS), as lead partner, in collaboration with Centro Nazionale Opere Salesiane – Formazione Aggiornamento Professionale (CNOS-FAP), Don Bosco Youth Network (DBYN), E4Impact Foundation Impresa Sociale (E4I), E35 Fondazione per la Progettazione Internazionale (E35), West African Centre for Water, Irrigation and Sustainable Agriculture, University for Development Studies (WACWISA-UDS), and Comune di Roma Capitale.

The intervention is implemented in the Greater Accra, Bono, Western, and Northern regions, involving nine Vocational Training Centres (VTCs), private companies partnering with the training centres and key government agencies involved in promoting youth employment, in particular the Commission for Technical and Vocational Education and Training (CTVET), the Youth EmploymentAgency (YEA), the National Youth Authority – Regional Secretariat (NYA) and the Ghana Enterprises Agency (GEA), together with its operational centres, the Business Resource Centre (BRC) and the Business Advisory Centre (BAC)

The INSPIRE Project aims to increase job opportunities for young Ghanaians, with a particular focus on women and persons with disabilities, by enhancing labour market monitoring in Ghana, improving the competitiveness of Ghanaian businesses, and increasing both the quality of training programs and access to them for women and persons with disabilities, thereby improving their employment prospects.

The expected results are as follows:

1. Enhanced monitoring of the labour market trends in Ghana;
2. Increased competitiveness of Ghanaian businesses;
3. Improved quality of training programs, as well as greater access for women and persons with disabilities to training pathways;
4. Enhanced employment opportunities for young Ghanaians.

Collaboration with UNICEF Ghana

UNICEF Ghana has emerged as a strategic partner in strengthening evidence-based planning, inclusivity, and labour market responsiveness within Ghana's TVET system, particularly through its focus on data systems, skills diagnostics, and youth-centred interventions. A key milestone in this regard was the Stakeholder Workshop on TVET Data Reporting held in Accra from 24th to 25th September 2025, organised by CTVET in collaboration with the German Office for International Cooperation in Vocational Education and Training (GOVET/BIBB) and supported by UNICEF Ghana. The workshop brought together a broad spectrum of stakeholders—including government institutions, academia, industry, and development partners—to assess the current state of TVET data systems, identify gaps, and develop actionable pathways towards a more integrated and evidence-driven data ecosystem. The deliberations underscored the centrality of reliable data in informing policy, improving labour market alignment, and enhancing accountability within the TVET sector, with strong emphasis placed on strengthening systems such as the Education

Management Information System (EMIS) and expanding data coverage to include informal sector training and graduate outcomes.

Building on this foundation, UNICEF further supported a landmark skills supply and demand assessment in the Ashanti Region, conducted between 2024 and 2025 in collaboration with the Ghana TVET Service.

Additionally, UNICEF's focus on foundational skills, safe learning environments, and the social perception of TVET aligns closely with broader sector priorities of improving access, equity, and quality.

Overall, UNICEF's contribution to Ghana's TVET sector highlights the critical role of data and research in driving systemic transformation. Through its support for data systems strengthening, labour market analysis, and policy engagement, UNICEF is helping to build the foundations of a TVET system that is not only evidence-based but also adaptive to the dynamic needs of Ghana's economy and its youthful population.

Collaboration with BIBB (Bundesinstitut Für Berufsbildung)/GOVET

This cooperation is anchored in the Joint Declaration of Intent signed in 2019 between Ghana's Ministry of Education and the German Federal Ministry of Education and Research and has since evolved into a robust institutional partnership involving CTVET and the Federal Institute for Vocational Education and Training (BIBB), and the German Office for International Cooperation in Vocational Education and Training (GOVET). A major milestone in this collaboration was the production of the first edition of the Ghana TVET Report and the subsequent high-level study tour undertaken by a Ghanaian delegation, led by the Director General of CTVET, Mr. Zakaria Sulemana, from 4th to 12th April 2025. The visit provided a platform for deepening bilateral engagement and learning from Germany's well-established, data-driven TVET system.

The study tour offered critical insights into how data serves as the foundation for effective TVET governance, planning, and policy formulation. Through engagements with leading German institutions, including BIBB, GOVET, the Federal Employment Agency, the Institute for Employment Research (IAB), and the Leibniz Institute for Educational Trajectories (LIfBi), the delegation explored advanced approaches to data collection, validation, analysis, and utilization in shaping labour market-responsive training systems. Notably, Germany's integrated TVET reporting frameworks and forecasting models, such as the QuBe project, demonstrated how data can be used to anticipate future skills needs and align training provision accordingly. These experiences reinforced the importance of coordinated institutional processes and reliable data systems in ensuring efficiency, transparency, and accountability in the TVET sector.

A key outcome of the study tour is the renewed commitment to developing a comprehensive National TVET Data Management and Information System, aimed at strengthening Ghana's capacity for data-driven decision-making. This initiative aligns with CTVET's broader vision of establishing an integrated TVET Management Information System (TVETMIS) to support evidence-based policy making, monitoring, and reporting, including the ongoing development of the Ghana TVET Report. In addition, the collaboration has highlighted the need to strengthen employer engagement mechanisms, ensuring that training delivery remains responsive to current and future labour market demands.

Beyond data systems, the partnership with Germany is contributing to broader reforms in the TVET ecosystem, including the promotion of dual training approaches, digital learning innovations, and inclusive education pathways. The emphasis on international knowledge exchange, joint research, and institutional capacity building reflects a long-term commitment to strengthening Ghana's TVET system through sustainable and mutually beneficial cooperation.

Overall, the Ghana–Germany partnership underscores the critical role of international cooperation in advancing a modern, efficient, and globally competitive TVET system. By leveraging Germany's expertise in data-driven TVET governance and labour market integration, Ghana is well-positioned to enhance the quality, relevance, and responsiveness of its skills development system in line with national and global development priorities.

Collaboration with the World Bank

CTVET's collaboration with the World Bank is through the implementation of the Ghana Jobs and Skills Project (GJSP).

The Ghana Jobs and Skills Project (GJSP) is supported by the International Development Association of the World Bank. The Development Objective of the project is to support skills development and job creation in Ghana. The project is being coordinated by the Ministry of Finance and implemented by:

- Ministry of Employment and Labour Relations
- Commission for Technical and Vocational Education and Training
- Ghana Enterprises Agency

and supported by the Ministry of Environment, Science, Technology and Innovation.

The project comprises of five (5) components that support the Government's prioritized skills development and job creation agenda. These are:

Component 1 – Provision of apprenticeship training for jobs

Supports the apprenticeship training for jobs through:

i. Provision of Apprenticeship Training which combines workplace-based training offered by a master craft person and classroom-based training offered by a public or private accredited training institute (provider), under a formalized, standardized, and quality-assured apprenticeship system.

ii. Provision of training of master craft persons who provide Apprenticeship Training; registration of public and private Apprenticeship Training providers and progress toward accreditation and the provision of competency-based training, in line with the country's National Technical and Vocational Education and Training Qualification Framework; and capacity development of accrediting bodies to effectively perform their role in accrediting Apprenticeship Training providers.

Component 2 – Provision of entrepreneurship and micro and small enterprise support for jobs.

Supports the entrepreneurship and small and medium enterprise for jobs programme through: ***Sub-component 2.1: Provision of entrepreneurship training and competitive business start-up grants to individuals for jobs***

i. Provision of Entrepreneurship Training, based on standardized, quality-assured modules, customized to baseline needs and abilities of the target populations in different locations.

ii. Provision of Competitive Business Start-up Grants for self-employment, coupled with mentorship support and intensive oversight, to those individuals (or groups of individuals) who successfully complete entrepreneurship training at the intermediate level.

Sub-component 2.2: Provision of competitive grants to private enterprises for expanded employment

Provision of Competitive Grants to selected micro and small enterprises or groups of such enterprises to support workforce training and technological inputs to enhance worker productivity and workforce expansion, administered through the Skills Development Fund.

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

This supports:

Subcomponent 3.1: Full development and operationalization of the Ghana Labour Market Information System (GLMIS)

Development, operationalization, and maintenance of the Ghana Labor Market Information System (GLMIS), including ensuring access and availability for use of GLMIS data by government ministries and agencies, private employers, education and training institutions, prospective and incumbent workers, among other stakeholders.

Subcomponent 3.2: Upgrading of District Public Employment Centers (PECs) and provision of improved job connection and labor market information services to job seekers and employers

Physical refurbishment of selected District Public Employment Centers and the capacity development of staff in said centers, to provide job connection services to job seekers and employers.

Subcomponent 3.3: Independent performance reviews of, and technical assistance for reforming, Government youth employment and skills development programs

Conduct independent performance reviews and provide technical assistance for reforming selected government youth employment and skills development programs.

Component 4 – Capacity development, technical assistance, and project management support for enhanced skills and jobs impact

This supports project implementation through:

Subcomponent 4.1: Capacity development and technical assistance

Provision of goods, works and services for capacity building and technical assistance to: (a) Commission for Technical and Vocational Education and Training ("CTVET"); (b) Ghana Enterprises Agency ("GEA"); (c) Ministry of Employment and Labour Relations ("MELR"); (d) Ministry of Environment, Science, Technology, and Innovation ("MESTI"); and (e) Ministry of Finance ("MoF"), for the implementation of their respective parts of the Project.

Subcomponent 4.2: Project management support

Strengthen the capacity of all implementing agencies.

9.1. WORLDSKILLS GHANA: STRENGTHENING CAPACITY FOR NATIONAL DEVELOPMENT THROUGH INTERNATIONAL COOPERATION

WorldSkills Ghana, after becoming a member of the global WorldSkills movement in 2019 has intensified its efforts by deliberately focusing on developing national capacity in seven (7) priority technical skill areas. This targeted approach aims to position Ghana to develop future experts, industry leaders, and national development drivers across key sectors of the economy.

Through sustained international cooperation, structured training programmes, expert exchanges, and continuous knowledge-sharing initiatives, Ghana is steadily strengthening its capacity to deliver high-quality, industry-relevant skills training that meets global workforce demands.

This deliberate investment in skills development emphasises a clear national vision to ensure that Ghana not only participates in global platforms but also stands tall as a competitive, self-reliant, and globally respected nation of skilled people, capable of nurturing talent that drives innovation, productivity, and sustainable development.

9.1.1. Structured International Training & Expert Exchange Programmes

WorldSkills Ghana has operationalised a bilateral Memorandum of Understanding (MoU) with WorldSkills Germany, facilitating intensive skills transfer between 2024 and 2025.

This collaboration has enabled reciprocal training exchanges, where Ghanaian experts and competitors receive advanced training in Germany, while German experts deliver localised training in Ghana.

The exchange programme has strengthened technical and vocational skills development through international collaboration and knowledge sharing. Capacity development activities under the programme focused on key trade areas, including carpentry, welding, IT network systems administration, electrical installations, cooking, bricklaying, and automobile technology, which are critical to strengthening technical competencies and enhancing workforce competitiveness.

Ghana will participate in the WorldSkills Competition in China, scheduled for 22–28 September 2026. Ghana's participation in Electrical Installation, Welding, and IT Network Systems is supported by corresponding technical experts in these skill areas. This participation reflects Ghana's growing confidence and readiness to compete on the global stage, following years of deliberate investment in skills development.

10. CONCLUSION

Ghana's TVET system is undergoing a significant transformation, driven by strong policy direction, institutional reforms, and growing national recognition for skills development.
Governance structures anchored in the Education Regulatory Bodies Act, 2020 (Act 1023) have improved coordination, regulatory oversight, and accountability across the sector.

Access to TVET has expanded substantially, largely due to the Free TVET policy, leading to rapid enrolment growth and greater participation, particularly among disadvantaged groups. Access to Skills development has expanded and increased in the informal sector as well, where over fifty thousand youth have been trained through apprenticeships. Despite this progress, regional disparities, gender gaps, and inclusion challenges for persons with special needs persist.

In terms of quality, the adoption of Competency-Based Training (CBT) and the operationalisation of the National TVET Qualifications Framework (NTVETQF) have strengthened the standardisation and relevance of training. However, infrastructure deficits, outdated equipment, and facilitator capacity gaps continue to constrain the full realisation of quality TVET delivery. Workplace Experience Learning (WEL) has improved practical training, but its implementation remains uneven across institutions.

Learning outcomes indicate that TVET is increasingly equipping learners with technical competencies and progression pathways, yet gaps remain in employability skills, including entrepreneurship, digital literacy, and soft skills. While many graduates aspire to further education, fewer transition directly into employment or enterprise, reflecting weak industry linkages and limited structured transition systems.

Environmental sustainability and the greening of TVET are emerging priorities, with institutions beginning to integrate green practices and awareness into training delivery. However, implementation remains in its early stages, constrained by limited institutional capacity, funding, and structured frameworks for scaling green skills development.

Digitalisation is gradually transforming the TVET landscape, with greater integration of ICT tools and growing recognition of future skills needs. Nonetheless, disparities in digital infrastructure, access to technology, and digital competencies among facilitators and learners continue to constrain progress.

TVET financing remains a critical challenge.]The absence of a fully operationalised TVET Fund limits sustainable financing and strategic investment in priority areas.

Finally, international cooperation has played a vital role in supporting reforms, capacity building, and innovation across the sector. However, the sustainability and long-term impact of these partnerships depend on stronger alignment with national priorities and on institutional ownership.

In a nutshell, Ghana's TVET system is on a positive trajectory, but achieving a fully demand-driven, inclusive, quality, and future-ready system requires addressing some structural, financial, and implementation gaps.

11. RECOMMENDATIONS AND WAY FORWARD

The following strategic actions are recommended:

- Strengthen governance and coordination across CTVET, TVET Service, GTEC, and industry through enhanced institutional collaboration, with clearly defined roles, improved communication, and stronger accountability frameworks. Expand the role of PTAs/SMCs beyond governance to include career guidance and industry linkage support.

- Expand equitable access and inclusion by scaling up targeted interventions to address regional disparities, gender gaps, and inclusion for persons with disabilities. Invest in inclusive infrastructure, assistive technologies, and gender-responsive programmes to ensure equitable participation and completion.

- Improve quality and training delivery by prioritising investment in modern workshops, equipment, and consumables to support CBT implementation. Strengthen facilitator capacity development, including industry exposure and continuous professional training. Standardize WEL implementation across institutions to ensure consistency.

- Enhance learning outcomes and employability by integrating entrepreneurship, digital skills, and soft skills across all training programmes. Establish robust graduate tracking systems, conduct tracer studies, and provide career services to support transitions into employment and self-employment. Strengthen Sector Skills Bodies (SSBs) to improve curriculum relevance.
- Scale up environmental sustainability and green skills by developing and implementing a National Green Skills Framework for TVET and integrating sustainability across curricula, institutional operations, and training delivery. Promote partnerships in renewable energy, sustainable agriculture, and waste management.
- Accelerate digital transformation by investing in digital infrastructure, learning management systems, and connectivity across institutions. Build digital competencies among facilitators and learners and integrate ICT into teaching, assessment, and administration.
- Strengthen TVET financing by operationalising a dedicated TVET Fund to support infrastructure, training delivery, innovation, and apprenticeships. Promote public–private partnerships (PPPs), performance-based financing, and industry co-financing to ensure sustainability.
- Deepen industry engagement, provide incentives for industry participation in curriculum design, WEL, apprenticeships, and certification processes. Strengthen collaboration frameworks to ensure training aligns with labour market demands.
- Optimise international cooperation and align development partner interventions with national priorities to ensure coordination, sustainability, and knowledge transfer. Leverage partnerships to drive innovation, technology transfer, and capacity building.

12. REQUIRED POLICY ACTIONS

The following priority policy actions are proposed:

- Establish and operationalise the TVET Fund with clear governance, financing streams (levies, PPPs, DP support), and accountability mechanisms.
- Develop a TVET Digitalisation Strategy that includes the rollout of TVETMIS, investment in digital infrastructure, and the integration of digital skills into curricula.
- Adopt a National Green TVET Policy Framework to mainstream environmental sustainability and green skills across all TVET institutions and programmes.
- Institutionalise mandatory Workplace Experience Learning (WEL) across all TVET programmes with enforceable standards and industry participation incentives.
- Strengthen labour market intelligence systems, including tracer studies and skills forecasting, to inform curriculum development and policy planning.
- Implement inclusive TVET standards and guidelines, with a focus on gender equality, disability inclusion, and equitable regional development.
- Introduce performance-based financing mechanisms tied to enrolment, completion, employability outcomes, and industry engagement.
- Formalise industry participation through Sector Skills Bodies (SSBs) with defined roles in curriculum development, assessment, and certification.
- Develop the TVETMIS as a national data backbone, ensuring real-time data for planning, monitoring, and evaluation.
- Enhance policy coherence and coordination across all TVET regulatory and implementing institutions under the Ministry of Education.

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