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তারিখ : ১১ আষাঢ় ১৪৩২
২৫ জুন ২০২৫

বিষয় : Annual Sector Performance Report (ASPR) 2024 অনুমোদন সংক্রান্ত।

সূত্র : ডিটিই'র স্মারক নং : ৫৭.০৩.০০০০.০১৬.২৪.০১০.২৩-(পার্ট-৫)-২১২, তারিখ : ২৮/০৫/২০২৫ খ্রি ।

উপর্যুক্ত বিষয় ও সূত্রোক্ত পত্রের প্রেক্ষিতে জানানো যাচ্ছে যে, কারিগরি ও মাদ্রাসা শিক্ষা বিভাগ এর আওতায় কারিগরি শিক্ষা অধিদপ্তর কর্তৃক বস্তবায়নাধীন "Human Capital Development Progrmme (HCDP-21)" বাজেট সহায়তা কর্মসূচির আওতায় Annual Sector Performance Report (ASPR) 2024 যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদিত হয়েছে।

০২। এমতাবস্থায়, উপর্যুক্ত বিষয়ে পরবর্তী প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য নির্দেশক্রমে অনুরোধ করা হলো।

সংযুক্তি : অনুমোদিত ASPR 2024.

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সদয় অবগতির জন্য অনুলিপি :
১। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
২। অতিরিক্ত সচিব (পরিকল্পনা ও উন্নয়ন) কারিগরি ও মাদ্রাসা শিক্ষা বিভাগ, শিক্ষা মন্ত্রণালয়, ঢাকা।
৩। প্রকল্প পরিচালক, "Human Capital Development Progrmme (HCDP-21)" বাজেট সহায়তা প্রকল্প, কারিগরি শিক্ষা অধিদপ্তর, আগারগাঁও, ঢাকা।
৪। Team Leader, "Human Capital Development Progrmme (HCDP-21)" বাজেট সহায়তা প্রকল্প, কারিগরি শিক্ষা অধিদপ্তর, আগারগাঁও, ঢাকা।
৫। সচিবের একান্ত সচিব (সিনিয়র সহকারী সচিব), কারিগরি ও মাদ্রাসা শিক্ষা বিভাগ, শিক্ষা মন্ত্রণালয়, ঢাকা।
৬। সংশ্লিষ্ট নথি।

Government of the People's Republic of Bangladesh

TVET
Annual Sector Performance Report (ASPR) 2024

Technical and Madrasah Education Division

Draft May 2025

Government of the People's Republic of Bangladesh

TVET

Annual Sector Performance Report (ASPR) 2024

Technical and Madrasah Education Division

Ministry of Agriculture

Ministry of Expatriates Welfare and Overseas Employment

Ministry of Shipping

May2025

Messages

It gives me great satisfaction to present the Technical and Vocational Education and Training (TVET) Annual Sector Performance Report 2024, which strengthens our commitment to transparent governance while supporting our transformative vision for technical education in Bangladesh.

Bangladesh stands at a pivotal moment in our development. Despite significant infrastructure progress, our future prosperity depends on strengthening human capital through enhanced education and skills development. We recognize the need for a fundamental policy shift and substantial investment in TVET to elevate technical education's standing in society.

The inter-ministerial collaboration in this report—uniting data from Technical and Madrasah Education, Agriculture, Expatriates' Welfare, and Shipping sectors—exemplifies the coordination essential for coherent TVET development. This approach addresses fragmentation in education planning and establishes market-driven planning that connects education to labor market needs.

The findings on youth participation show encouraging progress while highlighting growth opportunities. Improvements in gender parity and completion rates demonstrate that well-designed TVET programs deliver strong outcomes when properly supported. This data reinforces the importance of enhancing the perception of technical professions and developing comprehensive career counseling systems.

As we work toward expanding quality technical education and building international certification standards, this report will guide our infrastructure investments, inform quality initiatives, and support the creation of a TVET ecosystem that drives productivity and cultivates the human capital essential for Bangladesh's continued economic transformation.

Professor Dr. Chowdhury Rafiqul Abrar
Advisor
Ministry of Education, Government of the People's Republic of Bangladesh

Message

I am pleased to present the second edition of the TVET Annual Sector Performance Report 2024, an important step forward in our commitment to accountability, governance, and evidence-based planning in Bangladesh's technical education sector. This report establishes a robust framework through 24 key performance indicators that allow us to monitor progress, identify implementation gaps, and ensure responsible stewardship of public resources.

The Technical and Madrasah Education Division has facilitated this collaborative initiative with the Ministries of Agriculture, Expatriates' Welfare and Overseas Employment, and Shipping to establish a unified performance measurement framework. This alignment represents a significant governance advancement that enhances coordination and minimizes policy fragmentation in our technical education system.

The report reveals important insights that will guide our policy decisions. While we observe substantial institutional expansion with a 46% increase in TVET institutes and growing female participation at 29.53%, we must acknowledge persistent challenges in teacher recruitment, quality assurance mechanisms, and industry partnerships. These findings provide a clear mandate for targeted reforms in our institutional frameworks and administrative processes.

By establishing clear indicators and targets, we can better assess progress, identify challenges, and implement timely interventions. This results-oriented approach enables more efficient resource allocation and helps ensure that our initiatives effectively address the real needs of students, educators, and employers.

I extend my appreciation to all stakeholders who contributed to this accountability framework, and I affirm our commitment to acting on these findings to strengthen institutional performance across our TVET system.

Dr. K M Kabirul Islam
Secretary
Technical and Madrasah Education Division (TMED)

Foreword

The TVET Annual Sector Performance Report 2024 represents a milestone in our efforts to build a data-driven technical education system in Bangladesh. As we examine the metrics across the sector, we gain valuable insights for strengthening our implementation approaches and institutional effectiveness.

The data reveals both significant achievements and concrete challenges. The Directorate of Technical Education has successfully expanded our institutional presence, with substantial growth in institutes and teaching staff. We have made notable progress in establishing industry partnerships, with most institutes now having formal MOUs with employers—essential for ensuring our training remains relevant to labor market demands.

On the other hand, we also face operational challenges requiring immediate attention: high teacher vacancy rates reflecting rapid institute growth, insufficient teacher training highlighting the need for expanded professional development, and digital transformation initiatives at an early stage with limited technology integration in instruction and administration. These areas require further investment and capacity building.

The Directorate will implement targeted improvements in recruitment, training, curriculum development, facility enhancement, and industry engagement. We remain committed to strengthening our institutions' capacity to deliver high-quality, industry-relevant training preparing students for successful employment.

I appreciate the technical staff across all participating ministries who contributed to this report. Their dedication strengthens our ability to build a world-class TVET system.

Shoaib Ahmed Khan
Director General
Directorate of Technical Education (DTE)

Acknowledgement

The successful development of the Technical and Vocational Education and Training (TVET) Annual Sector Performance Report (ASPR) 2024 reflects the power of collaboration and shared national commitment to building a skilled, inclusive, and future-ready workforce in Bangladesh. This report marks a significant milestone in strengthening the country's TVET ecosystem and aligning it with national development priorities.

We express our profound gratitude to the Honourable Advisor to the Ministry of Education for their visionary leadership and unwavering support. We extend sincere appreciation to the Secretary of the Technical and Madrasah Education Division (TMED) for strategic guidance and to the Director General of the Directorate of Technical Education (DTE) for coordinating technical inputs and ensuring alignment with national TVET strategies.

We gratefully acknowledge the valuable contributions of key ministries and government agencies, particularly the Ministry of Agriculture, Ministry of Shipping, and Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE) for their active engagement. Special recognition is due to the following institutional leaders for their continued commitment:

> Director General, Directorate of Agricultural Extension (DAE)
> Director General, Bureau of Manpower, Employment and Training (BMET)
> Director General, Bangladesh Bureau of Educational Information and Statistics (BANBEIS)
> Chairman, Bangladesh Technical Education Board (BTEB)

We deeply appreciate the contributions from education officials and focal points, whose insightful feedback through consultations, workshops, and surveys has greatly enriched this report. Their perspectives helped ensure the ASPR 2024 reflects both current realities and future workforce needs.

Our thanks go to technical institutes, government agencies, and stakeholders at national and local levels who provided essential data, feedback, and support. Your engagement ensured the report is comprehensive, evidence-based, and actionable.

Finally, we commend the dedicated efforts of TMED and DTE teams, along with consultants and technical experts, who worked diligently to draft, review, and finalize the report. Your professionalism, commitment, and attention to detail are deeply appreciated.

As we move toward dissemination and implementation, we look forward to continued collaboration in transforming the TVET sector and advancing meaningful opportunities for all.

ASPR 2024 Working Group

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ABBREVIATION

4IR	Fourth Industrial Revolution
ADB	Asian Development Bank
ADP	Annual Development Programme
AP	Action Plan
APA	Annual Performance Agreement
ASPR	Annual Sector Performance Report
BANBEIS	Bangladesh Bureau of Educational Information & Statistics
BBS	Bangladesh Bureau of Statistics
BESP	Bangladesh Education Sector Plan
BMET	Bureau of Manpower, Employment and Training
BNFE	Bureau of Non-Formal Education
BNQF	Bangladesh National Qualification Framework
BTEB	Bangladesh Technical Education Board
CBT	Competency-Based Training
CBT&A	Competency-Based Training and Assessment
CDP	Capacity Development Plan
Covid-19	Corona Virus Disease
CPD	Continuous Professional Development
CSO	Civil Society Organization
DAE	Directorate of Agriculture Extension
DG	Director General
DME	Directorate of Madrasah Education
DTE	Directorate of Technical Education
ELCG	Education Local Consultative Group
EU	European Union
FY	Fiscal Year
GDP	Gross Domestic Product
GoB	Government of Bangladesh
HCDP-21	Human Capital Development Programme for Bangladesh 2021
HSC (Voc)	Higher Secondary Certificate (Vocational)
IBAS	Integrated Budget Accounting System
ICT	Information and Communication Technology
ILO	International Labour Organization
IMED	Implementation, Monitoring and Evaluation Division
ISC	Industry Skills Council
KPI	Key Performance Indicator
LFS	Labour Force Survey
M&E	Monitoring and Evaluation
MICS	Multiple Indicator Cluster Survey
MIS	Management Information System
MoA	Ministry of Agriculture
MoE	Ministry of Education
MoEWOE	Ministry of Expatriates Welfare and Overseas Employment
MoS	Ministry of Shipping
MoF	Ministry of Finance
MPO	Monthly Payment Order
MTBF	Medium Term Budget Framework
NEET	Not in Education, Employment or Training
NEP	National Education Policy
NGO	Non-Governmental Organization
NHRDF	National Human Resource Development Fund

NSDA	National Skills Development Authority
NSDP	National Skills Development Policy
NTVQF	National Technical and Vocational Qualifications Framework
PFM	Public Financial Management
PPP	Public Private Partnership
PwD	People with Disabilities
RPL	Recognition of Prior Learning
RTO	Registered Training Organization
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goal
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SPMF	Sector Performance Monitoring Framework
SSC (Voc)	Secondary School Certificate (Vocational)
STR	Student Teacher Ratio
TA	Technical Assistance (or Assistant)
TMED	Technical and Madrasah Education Division
TSC	Technical School and College
TTC	Technical Training Centre
TTTC	Technical Teachers Training College
TVET	Technical and Vocational Education and Training
UNESCO	United Nation Educational, Scientific and Cultural Organization

EXECUTIVE SUMMARY

The Technical and Vocational Education and Training (TVET) Annual Sector Performance Report 2024 (ASPR 2024) is a testament to the collaborative efforts of four key ministries entrusted with providing technical and vocational education in Bangladesh: the Technical and Madrasah Education Division (TMED), Ministry of Agriculture (MoA), Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE), and Ministry of Shipping (MoS). As the second edition in this reporting series, ASPR 2024 offers a comprehensive analysis of the sector's performance, guided by the Sector Performance Monitoring Framework (SPMF). This framework enables systematic and harmonized tracking of progress and challenges across ministries through 24 Key Performance Indicators (KPIs), supporting evidence-based decision-making and sectoral coordination.

Sector-Level Performance

The TVET sector in Bangladesh has witnessed notable expansion and transformation in recent years. According to data from the Bangladesh Bureau of Educational Information and Statistics (BANBEIS), the total number of technical and vocational institutions grew from 7,259 in 2020 to 10,595 in 2023—a 46% increase. This growth was driven by a 52% rise in public institutions and a 45% expansion in the private sector.

Although the overall number of teaching staff increased modestly by 2.4%, the proportion of female teachers rose significantly by 24.4%, reflecting positive momentum in gender inclusion. Student enrolment experienced a dramatic 62.6% surge during this period, with female participation increasing by an even greater margin—76.2%.

Performance across key indicators reveals a mixed picture of progress and persistent challenges:

- KPI 1 – Teacher-Student Ratio: Increased from 20.70 in 2020 to 32.86 in 2023, suggesting growing strain on instructional capacity.

- KPI 2 – Students per Institution: Rose from 154 to 172, indicating increased enrolment across institutions.

- KPI 3 – Teachers per Institution: Declined from 7.44 to 5.22, underscoring the need to scale up recruitment and deployment of educators.

- KPI 5 – Completion Rate at Diploma Level: Improved steadily from 92.14% to 93.66%, reflecting strong performance at the tertiary level.

- KPI 6 – Completion Rate at HSC (Vocational) Level: Rose slightly from 54.9% to 55.61%, but remains significantly lower compared to other education levels.

- KPI 7 – Completion Rate at SSC (Vocational) Level: Increased consistently from 69.78% to 71.08%, showing gradual progress.

- KPI 8 – Dropout Rate at Diploma Level: Declined from 7.86% to 6.34%, indicating better student retention at higher levels.

- KPI 9 – Dropout Rate at HSC (Vocational) Level: Marginally improved from 45.1% to 44.39%, though the rate remains critically high.

- KPI 10 – Dropout Rate at SSC (Vocational) Level: Fell from 30.22% to 28.95%, marking steady gains in retention.

- KPI 11 – Gender Parity Index (GPI): Improved from 0.37 to 0.42, reflecting incremental progress toward gender equity in TVET.

- KPI 12 – Female Participation in TVET: Increased from 27.24% to 29.53%, indicating broader engagement of women in technical education.

- KPI 13 – Youth Participation (Ages 15–24): Rose from 3.59% to 5.04%, a significant gain, though still below Sustainable Development Goal (SDG) benchmarks.

This performance trajectory illustrates both the dynamism and the demands facing the TVET sector. While access and enrolment have grown substantially, quality assurance, equitable participation, and human resource development remain critical areas for continued investment and policy attention.

BTEB Statistics and Trends:

The Bangladesh Technical Education Board (BTEB) reports steady and significant growth in Technical and Vocational Education and Training (TVET) enrolment. Total student numbers rose from 1,387,691 in 2019 to 1,689,905 in 2023, marking a 22% increase over five years. This growth is particularly notable in specific programme areas: SSC (Vocational) enrolment increased by 55%, from 372,257 to 577,179 students, while Short Course enrolment expanded by 25% during the same period. However, on-going discrepancies with BANBEIS data need to be addressed through harmonized reporting frameworks.

BTEB's analysis highlights a consistent rise in TVET's share of total education enrolment, growing from 14.58% in 2014 to 19.00% in 2023, demonstrating progress toward the national target of achieving 30% TVET participation by 2030. Examination results show encouraging trends, notably with Secondary (SSC) Level programs achieving substantial improvement from 72.24% in 2019 to 82.59% in 2023. Moving forward, the priority is to ensure employment outcomes and reduce NEET (Not in Education, Employment, or Training) rates among the graduates.

Ministry-Level Performance

Technical and Madrasah Education Division (TMED):

Between 2021 and 2024, the Directorate of Technical Education (DTE) under TMED underwent significant institutional expansion, with the number of institutes increasing by 53%, from 113 to 177, and teaching staff growing by 227%, from 1,844 to 6,034. The overall teacher-student ratio (KPI 1) stands at 28.21, reflecting marked differences between institution types---41.63 in Polytechnics and 12.61 in Technical Schools and Colleges (TSCs).

While this rapid expansion presents implementation challenges, progress is evident across several areas. The teacher vacancy rate (KPI 4) has improved to 53.62%, showing substantial progress from previous highs as the system works to fill positions created through the expansion of over 12,000 new teaching posts. Teacher training efforts continue, with 24.53% of teachers having received required training (KPI 15), while institutional performance shows 2.3% of institutions achieving above 90% in Annual Performance Agreement (APA) assessments (KPI 16). Gender inclusion initiatives are yielding gradual results, with the Gender Parity Index (KPI 11) reaching 0.24 and female participation (KPI 12) growing to 19.45%, reflecting on-going efforts toward more inclusive strategies.

Positive developments include strong industry engagement, with 74.57% of institutes establishing Memoranda of Understanding (MOUs) with industry partners (KPI 21). Moreover, stipend coverage (KPI 14) reaches 46.97% of students, providing important financial support for learners. The allocation for TVET as a percentage of the national budget (KPI 23) has increased significantly to 1.39%, representing enhanced government commitment to technical education.

Ministry of Agriculture (MoA):

The Directorate of Agriculture Extension under the Ministry of Agriculture currently oversees 18 public Agriculture Training Institutes (ATIs) offering diploma-level programs. From 2020 to 2023, student enrolment increased by 21.7%, rising from 9,372 to 11,410, while the number of teaching staff grew modestly by 5.7%, from 193 to 204. During this period, the gender ratio improved slightly from 70:30 to 69:31 (male to female). Performance indicators reveal strong academic outcomes. Diploma-level completion rates (KPI 5) are exceptionally high at 97.96%, accompanied by a low dropout rate (KPI 8) of just 2.06%. However, the teacher-student ratio (KPI 1) has increased to 55.9, signalling pressure on instructional capacity. Additionally, teacher vacancy (KPI 4) remains a concern at 32.99%. In terms of gender equity, the Gender Parity Index (KPI 11) has improved to 0.45, and female participation (KPI 12) has reached 31.18%, indicating gradual progress toward more inclusive enrolment.

A notable strength is that 100% of teachers are formally trained (KPI 15). However, current training programs are exclusively focused on agricultural technology, with limited emphasis on pedagogical or instructional methods. Institutional performance is also commendable,

with 93.44% of ATIs scoring above 90% in Annual Performance Agreement (APA) assessments (KPI 16).

Despite these achievements, financial limitations persist, as the TVET allocation as a share of the national budget (KPI 23) has declined to just 0.0075%, underscoring the need for increased investment to sustain and scale quality improvements in agricultural TVET.

Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE):

Operating under the Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE), BMET experienced remarkable institutional growth between 2020 and 2023. The number of training institutes expanded by 54.3%, from 70 to 108, while student enrolment surged by 191.4%, increasing from 31,181 to 90,857.This rapid expansion, however, has impacted several performance indicators. The Teacher-Student Ratio (KPI 1) rose sharply from 24 in 2020 to 58 in 2023, indicating strain on instructional resources. The teacher vacancy rate following the organogram (KPI 4) remains high at 50.15%, highlighting staffing shortages despite enrolment growth.

On the positive side, Gender equity indicators have shown modest progress. The Gender Parity Index (KPI 11) improved to 0.39, and female participation (KPI 12) rose to 28%, reflecting incremental advancement toward inclusivity. Moreover, 100% of enrolled students receive stipends (KPI 14), and all institutes operate above 80% of their enrolment capacity (KPI 17), demonstrating high demand and efficient utilization of infrastructure. However, industry engagement and post-training support remain limited. Only 20.37% of institutes have established Memoranda of Understanding (MOUs) with industry partners (KPI 21), and just 33.63% of graduates are provided with employment support services (KPI 22).

Ministry of Shipping (MoS):

Between 2019 and 2024, the TVET system under the Ministry of Shipping (MoS) saw notable expansion. The number of institutes tripled, increasing from 2 to 6, while teaching staff grew by 68.8%, from 138 to 233. Student enrolment more than doubled, rising by 103% to reach 2,096. Despite this growth, the system has maintained a favourable teacher-student ratio (KPI 1) of 8.78, ensuring strong instructional capacity. Completion rates are exceptionally high at both the diploma level (KPI 5) - 97.1%, and HSC (Voc) level (KPI 6) - 98.99%, reflecting strong academic performance.

However, key challenges persist. The teacher vacancy rate (KPI 4) following the organogram has increased significantly to 72.55%. Supplementary arrangement are being made through outsourcing temporary teaching staff. The proportion of trained teachers (KPI 15) has declined to 50%, raising concerns about instructional quality. Gender disparities remain a critical issue, with a Gender Parity Index (KPI 11) of just 0.14, and female participation (KPI 12) at only 13.64%, indicating a pressing need for more inclusive policies and targeted recruitment efforts. Further challenges are evident in student support and industry engagement. Stipend coverage (KPI 14) declined sharply from 59.19% to

14.34%, potentially impacting access for disadvantaged learners. Moreover, industry linkages have weakened, with the percentage of institutes having MOUs with industry partners (KPI 21) falling by half to just 12.50%. On a positive note, institutional capacity indicators point to strong financial management, suggesting a solid foundation for further system strengthening if key gaps—especially in staffing, gender inclusion, and industry collaboration—are addressed*.*

Conclusion, Recommendations and Priority Actions

The Technical and Vocational Education and Training (TVET) sector in Bangladesh reflects a dynamic yet complex environment, shaped by both common challenges and ministry-specific contexts. While the sector has expanded significantly in recent years—demonstrated by increasing enrolment and institutional coverage—persistent issues continue to hinder quality and equity. Across all participating ministries, high teacher vacancy rates, gender disparities, and inconsistent institutional performance are recurring challenges. The deterioration of key quality indicators such as the teacher-student ratio signals that, although educational outcomes are being maintained, they are often achieved under resource constraints and institutional stress.

To strengthen the sector, several strategic recommendations are proposed. First, a comprehensive Teacher Development Plan should be developed to address recruitment bottlenecks and improve teacher retention across ministries. Second, gender-responsive TVET initiatives are urgently needed to enhance gender balance through targeted awareness campaigns, expanded admission quotas for female learners, and the promotion of inclusive, supportive institutional environments. Third, unified TVET data systems must be established to harmonize information management across BANBEIS, BTEB, and ministerial databases—enabling more effective planning and accountability. Fourth, stronger industry-institution linkages are essential to align training programs with labour market demands, while dropout reduction strategies—particularly at the vocational level—should be implemented to enhance completion rates. Additionally, there is a pressing need to develop targeted support systems for students with special needs and to establish a Private TVET Institute Support and Monitoring Framework that ensures quality assurance and capacity development for private providers, who serve the majority of TVET learners.

Priority actions for 2025–26 will focus on system-wide infrastructure and coordination. BANBEIS will establish a dedicated TVET Cell and enhance its data ecosystem through improved survey instruments and a comprehensive Management Information System (MIS) developed in collaboration with relevant ministries. The Technical and Madrasah Education Division (TMED) will lead sector coordination by establishing ASPR Steering and Technical Committees, updating the Sector Performance Monitoring Framework for 2026–2030, and supporting the development of the ASPR 2025 report. Each participating ministry will establish dedicated ASPR cells, create online databases to streamline information collection, and formalize data-sharing protocols to improve inter-ministerial coordination.

Ministry-specific actions will target unique institutional needs. The Ministry of Agriculture will focus on strengthening teaching capacity through pedagogical training, upgrading infrastructure and practical training facilities, and ensuring the financial sustainability of

Agricultural Training Institutes. The Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE) will develop comprehensive online databases for BMET institutes, conduct awareness workshops for institutional leadership, and establish student support cells. The Ministry of Shipping (MoS) will establish a dedicated TVET unit with the capacity for data management and policy coordination, enhance teacher-student ratios, improve gender inclusion in maritime programs, and link training data systems with Marine Academies. These coordinated and targeted actions will form a robust foundation for improved sector performance monitoring, enhanced TVET quality, and stronger alignment with national labour market needs.

CHAPTER 1: INTRODUCTION& BACKGROUND

The Annual Sector Performance Report 2024 (ASPR 2024) marks a major milestone in Bangladesh's ongoing efforts to strengthen its Technical and Vocational Education and Training (TVET) system. Developed through a robust inter-ministerial collaboration involving the Technical and Madrasah Education Division (TMED), Ministry of Agriculture (MoA), Ministry of Expatriates' Welfare and Overseas Employment (Moe WOE), and Ministry of Shipping (MoS), this second edition of the ASPR offers a comprehensive, data-driven analysis of the sector's performance. The report was made possible with technical support from the European Union's Human Capital Development Program 2021 (HCDP-21).

Building on the foundation laid by the inaugural report, ASPR 2024 utilizes the Sector Performance Monitoring Framework (SPMF)—a unified and systematic approach for tracking sector progress against a set of agreed-upon indicators. This framework enables consistent monitoring, evaluation, and reporting across ministries, promoting a holistic view of the TVET sector's achievements, challenges, and emerging priorities.

The report showcases notable accomplishments, reforms, and innovative initiatives undertaken by participating ministries and TVET stakeholders, reflecting a shared commitment to enhancing the quality, relevance, and inclusivity of technical and vocational education. Through evidence-based analysis, it evaluates the effectiveness of policies and interventions, providing actionable insights that guide strategic planning and policy formulation. By focusing on key performance indicators, the ASPR facilitates tracking of long-term trends, enables identification of institutional gaps, and helps prioritize areas requiring targeted investment and reform.

This collaborative reporting effort—supported by the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) and shaped by an inter-ministerial working group—demonstrates Bangladesh's commitment to transparent, results-based governance in education. It reflects a shared vision for a more efficient, inclusive, and industry-responsive TVET ecosystem that supports learners, empowers educators, meets labor market demands, and contributes to the country's broader economic development goals.

1.1 Education System of Bangladesh

Bangladesh's education system is structured into several key levels: primary, secondary, higher secondary, technical and vocational education and training (TVET), madrasah, and tertiary education. The Ministry of Education is the central authority responsible for formulating and overseeing education policies and programs, supported by its respective divisions and affiliated bodies.

Primary education consists of a five-year cycle from Class 1 to Class 5, targeting children aged 6 to 10 years. The curriculum is designed to build foundational competencies in literacy, numeracy, and critical thinking, alongside core subjects such as science, social studies, and religious education. As part of ongoing education reform, the government is

working to modernize the curriculum and integrate digital technologies into classroom teaching and learning systems.

Secondary education caters to students aged 11 to 18 years. The Secondary and Higher Education Division (SHED) under the Ministry of Education manages the education system at this level. Secondary education is divided into two cycles: secondary (grades 6-10) and higher secondary (grades 11-12). The curriculum includes languages, mathematics, sciences, accounting, environmental studies, and social sciences. Secondary education is provided through both government and private schools, with Bangla being the primary medium of instruction and English taught as a compulsory subject.

The Madrasah Education System in Bangladesh consists of two primary categories: Alia madrasahs and Quami madrasahs. Alia madrasahs are affiliated with the Bangladesh Madrasah Education Board and follow a national curriculum that includes Islamic studies alongside general education subjects such as science, mathematics, and English. Quami madrasahs, on the other hand, are independent institutions that primarily focus on Islamic studies.

The Technical and Vocational Education and Training (TVET) system in Bangladesh plays a pivotal role in developing a skilled workforce to meet the demands of the country's growing economy. Emphasizing practical knowledge and industry-relevant technical skills, TVET programs cover a wide range of fields, including engineering, information technology, agriculture, textiles, healthcare, and hospitality. Administered under the Technical and Madrasah Education Division (TMED) of the Ministry of Education, the TVET system is an essential component of the national education framework. TVET programs are offered at multiple levels to cater to diverse learner needs. These include:

- SSC (Vocational),
- Dakhil (Vocational),
- HSC (Vocational),
- HSC (Business Management and Technology – BMT),
- Diploma in Engineering,
- Short-term and certificate courses, and
- Various vocational training programs

Programs are delivered through a mix of public and private institutions, reflecting the system's broad institutional base. Secondary and higher secondary vocational programs are primarily offered through institutes under TMED, while diploma-level programs and short-term training are implemented by a variety of government bodies, including the Directorate of Technical Education (DTE), Bureau of Manpower, Employment and Training (BMET), and departments within the Ministries of Agriculture, Textiles, Shipping, Livestock and Animal Husbandry, Health, and Tourism & Hospitality. In addition, private sector providers play a significant role in expanding access to TVET opportunities. Together, these programs aim to equip learners with the practical skills, technical competencies, and workplace readiness required for gainful employment, entrepreneurship, and lifelong learning, thereby contributing to national productivity and socioeconomic development.

1.2 TVET Sector Policy Framework

The Technical and Vocational Education and Training (TVET) sector in Bangladesh plays a critical role in building a skilled and competent workforce aligned with the demands of a rapidly evolving economy. By equipping individuals with practical skills, hands-on experience, and industry-specific knowledge, the TVET system contributes significantly to reducing unemployment, promoting entrepreneurship, and driving inclusive economic growth. It serves as a key enabler of workforce readiness, particularly for youth and marginalized groups, while supporting national goals related to industrial development, productivity enhancement, and poverty reduction. The following provides a comprehensive overview of the policy framework, programs, and stakeholders within the TVET landscape in Bangladesh:

Policy Framework: The TVET sector in Bangladesh operates under a robust policy environment guided by the National Education Policy (NEP) 2010 and the National Skills Development Policy (NSDP)—initially introduced in 2011 and later updated in 2022. These policies provide the strategic direction for the development, regulation, and expansion of technical and vocational education across the country. Both the NEP and NSDP are closely aligned with Bangladesh's broader development agenda, including the Sustainable Development Goals (SDGs), the Eighth Five-Year Plan, and the TVET Action Plan. Together, they emphasize the need for an inclusive, demand-driven, and quality-focused TVET system that enhances employability, fosters lifelong learning, and ensures alignment between education and labor market needs. This policy framework underscores the government's commitment to building a modern and responsive TVET system that supports economic transformation and human capital development

Government Institutions: The Technical and Madrasah Education Division (TMED) is the central authority responsible for the coordination, development, and strategic oversight of the Technical and Vocational Education and Training (TVET) sector in Bangladesh. Operating under TMED, the Directorate of Technical Education (DTE) oversees the management and administration of a wide range of public TVET institutions. These include polytechnic institutes, technical schools and colleges, engineering colleges, and technical teacher training colleges. Additionally, the Bangladesh Technical Education Board (BTEB) functions as an autonomous regulatory body under TMED. BTEB is entrusted with key responsibilities such as curriculum development, institutional accreditation, student registration, and the administration of assessments, examinations, and certification for students enrolled in TVET programs. Together, these institutions form the backbone of Bangladesh's TVET governance structure, ensuring quality assurance, regulatory compliance, and alignment with industry needs.

TVET Delivery in Bangladesh: In Bangladesh, TVET is provided at four levels: secondary level (SSC), higher secondary level (HSC), diploma level, and short-term training courses in various trades. The majority of institutions, about 87 percent, are privately owned. The mentioned courses are offered by technical school and colleges, polytechnic institutes, commercially run institutes, technical training centers, and specialized institutes. Non-governmental organizations (NGOs) are also actively participating in vocational training

initiatives, while private companies provide work-based training such as apprenticeships and on-the-job programs that align with industry needs.

Involvement of the Private Sector: Private actors play a significant role in managing TVET institutions in Bangladesh, enrolling approximately 69 percent of TVET students. To increase access to TVET, the government provides salary subventions for teacher and staffs in private secondary vocational schools and madrasahs and higher secondary level colleges through the Monthly Pay Order (MPO) system. These private institutions are crucial in equipping students with the practical skills and knowledge required by industries and sectors.

Skill Development for Overseas Employment: The Ministry of Expatriate Welfare and Overseas Employment (Moe WOE) oversees the Bureau of Manpower Employment & Training (BMET), which focuses on developing skilled manpower for employment opportunities abroad. BMET manages Technical Training Centers (TTC) and the Institute of Marine Technology (IMT) to provide training and certification for individuals seeking overseas employment.

TVET Stakeholders: The TVET sector involves a wide range of stakeholders, including government agencies, educational institutions, industry associations, employers, workers' organizations, and development partners. Government bodies such as TMED, NSDA, BTEB and DTE play crucial roles in policy formulation, planning, and implementation. Private sector engagement is increasing through partnerships with industry, employer associations, and vocational training providers. Development partners are contributing through technical and financial support to strengthen TVET programs and institutions**.**

Partnerships and Collaboration: The TVET sector in Bangladesh involves collaboration and partnerships between government entities, private sector institutions, development partners and various departments such as the National Skill Development Authority, Ministry of Health, Ministry of Textile and the Ministry of Agriculture. These partnerships aim to strengthen the TVET system, enhance the quality of training, and align it with industry needs.

1.3   TVET Sector Regulatory Framework

The TVET sector in Bangladesh operates within a comprehensive policy and regulatory framework that emphasizes industry relevance, quality assurance, and stakeholder coordination. The Government of Bangladesh has implemented various policies to strengthen and coordinate the TVET sector.

The Technical and Madrasah Education Division (TMED), under the Ministry of Education, supports policy development, strategy implementation, and oversees the work of the Directorate of Technical Education (DTE) and the Bangladesh Technical Education Board (BTEB).

Key policy and planning documents include the National Education Policy (NEP) of 2010, the National Skills Development Policy (NSDP) of 2011 and 2022, the BTEB Act of 2018, the NSDA Act of 2018, and the SDG4 Framework for Bangladesh of 2019. The development of the Education Sector Plan (ESP) for financial years 2021 to 2025 is also completed.

In 2018, TMED formulated an integrated TVET Development Strategy and Action Plan, focusing on the Bangladesh National Qualification Framework (BNQF) to support the implementation of the National Technical and Vocational Qualifications Framework (NTVQF). The Action Plan provides recommendations to improve the policy environment, strengthen industry-TVET linkages, enhance curriculum quality, increase enrolment, introduce emerging courses, and improve job placement. Stakeholder engagement is emphasized in the implementation process. Additional specific policies have been implemented to support the development of the TVET sector, complementing the 2018 Action Plan and its initiatives.

1.4 TVET Sector Strategies and Recent Achievements

1.4.1 SECTOR STRATEGIES

The TVET sector in Bangladesh has implemented comprehensive strategies across participating ministries, focusing on multiple dimensions of technical and vocational education. At its core, these strategies aim to create a responsive, industry-aligned system that meets both economic demands and student needs across diverse fields including agriculture, industry sectors, manufacturing, overseas employment, maritime sectors, and others. Competency-based training and assessment (CBT&A) programs have been introduced throughout the TVET ecosystem to ensure graduates possess skills required by employers, while sector-specific skill councils facilitate industry involvement in curriculum development and standards setting.

The government has adopted several interconnected strategies to enhance the TVET sector across all participating ministries. Infrastructure expansion remains a priority, with efforts to increase the number of institutions nationwide for wider accessibility in both urban and rural areas. This expansion strategy includes not only technical schools and colleges but also specialized institutions focusing on agricultural training, maritime education, and skill development for overseas employment. Curriculum development focuses on creating industry-driven, up-to-date content through active stakeholder collaboration, ensuring relevance across diverse vocational fields from engineering and agriculture to shipping and expatriate-focused skills.

Teacher capacity building initiatives enhance pedagogical and technical skills of instructors through comprehensive training programs. These initiatives recognize the specialized knowledge required across different TVET domains, from technical engineering to agricultural sciences and maritime skills. Public-private partnerships are being fostered to improve program quality and strengthen employment pathways, with different ministries engaging sector-specific industry partners relevant to their training domains.

The TVET sector's strategic priorities also include promoting entrepreneurship and self-employment skills among graduates, enabling them to create employment opportunities rather than merely seeking them. International partnerships have been strengthened to facilitate knowledge exchange, exposure to global best practices, and mobility programs that enhance the quality and recognition of Bangladesh's TVET credentials abroad – particularly important for ministries focused on overseas employment opportunities. Establishing new institutes in rural and underserved areas has been prioritized to democratize access to technical education beyond urban centers, while targeted financial support programs encourage female participation and support underprivileged learners across all TVET streams.

Strengthening industry linkages remains a cornerstone strategy, with each ministry working to align its TVET programs with the specific labor market needs of its sector – whether in domestic manufacturing, agriculture, shipping, or overseas labor markets. The sector is collectively working to enhance TVET's public image by promoting the benefits and career opportunities available to graduates across various technical and vocational fields. Program diversification efforts address demands for skilled workers in emerging sectors, ensuring the TVET system remains responsive to economic shifts and technological advancements.

The modernization of existing TVET institutions continues across ministries, with investments in upgraded facilities, equipment, and technologies relevant to each field of training. A unifying element of these strategies is the implementation of the National Technical and Vocational Qualifications Framework (NTVQF), which establishes competency-based standards for various occupations, creating a coherent structure for qualifications across the diverse TVET landscape in Bangladesh.

1.4.2 RECENT ACHIEVEMENTS OF BANGLADESH'S TVET SECTOR

Bangladesh's Technical and Vocational Education and Training (TVET) system has made substantial progress in recent years, driven by a coordinated, multi-ministerial approach. The collective efforts of the Technical and Madrasah Education Division (TMED), Ministry of Agriculture (MoA), Ministry of Expatriates' Welfare and Overseas Employment (Moe WOE), and Ministry of Shipping (MoS) have contributed to notable advancements in access, quality, and relevance of technical education across the country.

Enrolment Growth and Sector Expansion: TVET enrolment has steadily increased, with the share of students in TVET programs rising from 14.4% in 2014 to 19.0% in 2023, marking continued progress toward the national target of 30% by 2030. This expansion reflects growing recognition of TVET's value in both the education sector and labor market. Despite temporary disruptions due to the COVID-19 pandemic in 2021, the upward trend has resumed, demonstrating sector resilience.

Policy and Institutional Strengthening: Significant policy milestones include the establishment of the Bangladesh National Qualifications Framework (BNQF), which standardizes qualifications across diverse TVET pathways. The updated National Skills Development Policy (NSDP 2022) provides a unified, cross-ministerial roadmap for skills

development. Furthermore, the establishment of the National Skills Development Authority (NSDA) has enhanced governance by fostering better coordination, implementation monitoring, and policy alignment among TVET stakeholders.

Infrastructure Expansion: To meet rising demand, the Directorate of Technical Education (DTE) launched ambitious expansion projects, including the establishment of 463 new public TVET institutes, projected to increase enrolment capacity by over 515,000 students. Similar expansion initiatives are underway in agriculture, maritime and overseas employment sectors, contributing to broader access across urban and rural areas.

Technological Modernization and Digital Learning: The integration of e-learning and blended learning models has transformed instructional delivery, improving training quality and accessibility. Accelerated by the COVID-19 pandemic, digital platforms and remote learning tools have enabled continuity of education and expanded access in hard-to-reach areas, particularly in fields such as agriculture, engineering, and maritime training.

Industry Engagement and Skills Relevance: Industry partnerships have been strengthened through industrial attachments, on-the-job training, apprenticeships, and employer involvement in curriculum design. These initiatives ensure alignment between training outcomes and workforce needs, improving graduate employability. Employment support mechanisms—such as career counseling, job placement services, and labor market linkage programs—further support students' transition into employment.

Gender Inclusion and Equity Efforts: Although gender disparities persist, targeted interventions have led to gradual improvements in female participation, particularly in traditionally male-dominated technical fields. Ministries have adopted gender-responsive strategies, including awareness campaigns, female-friendly infrastructure, and scholarship opportunities, to promote greater inclusivity.

Cross-Sectoral Collaboration and International Support: Enhanced collaboration among ministries, the private sector, and development partners has strengthened the TVET ecosystem. Support from international programs—such as the EU Human Capital Development Programme (HCDP-21)—has facilitated capacity building, policy reform, and system-wide improvements, reinforcing the sector's alignment with global best practices.

In conclusion, Bangladesh's TVET sector has demonstrated strong momentum through combined efforts in policy reform, institutional development, infrastructure growth, digital transformation, and industry alignment. These achievements reflect a clear commitment to building a modern, inclusive, and responsive TVET system that meets the diverse needs of learners and employers alike. As the country progresses toward middle-income status, the continued strengthening of the TVET sector will be critical for achieving sustainable and inclusive economic growth, enhancing both individual livelihoods and national productivity.

1.5 TVET Sector Performance Monitoring framework (SPMF)

1.5.1 SPMF RESULTS CHAIN

In mid-2021, a collaborative effort was undertaken by the Technical and Madrasah Education Division (TMED), Directorate of Technical Education (DTE), and Bangladesh Technical Education Board (BTEB) to develop the Sector Performance Monitoring Framework (SPMF) for the Technical and Vocational Education and Training (TVET) sub-sector in Bangladesh. The primary aim of this initiative was to establish an SPMF that aligns with international TVET indicators while leveraging the existing monitoring and evaluation capabilities.

To accomplish this objective, a dedicated working group consisting of 15 members was assembled, with technical assistance provided by the EU HCDP-21. The working group underwent extensive training on Results-Based Management (RBM), which included the utilization of tools such as Log Frame Analysis (LFA), Theory of Change (ToC), and indicator development.

Using problem tree and objective tree analyses, the SPMF working group conducted a thorough sector analysis to formulate a results chain and identify appropriate indicators. The final design of the SPMF follows a well-established conceptual framework that illustrates the interconnectedness between achieving sector outcomes and enhancing organizational capacity to effectively produce desired outputs.

The approved Result Chain in the Annual Sector Performance Report (ASPR) consists of three levels:
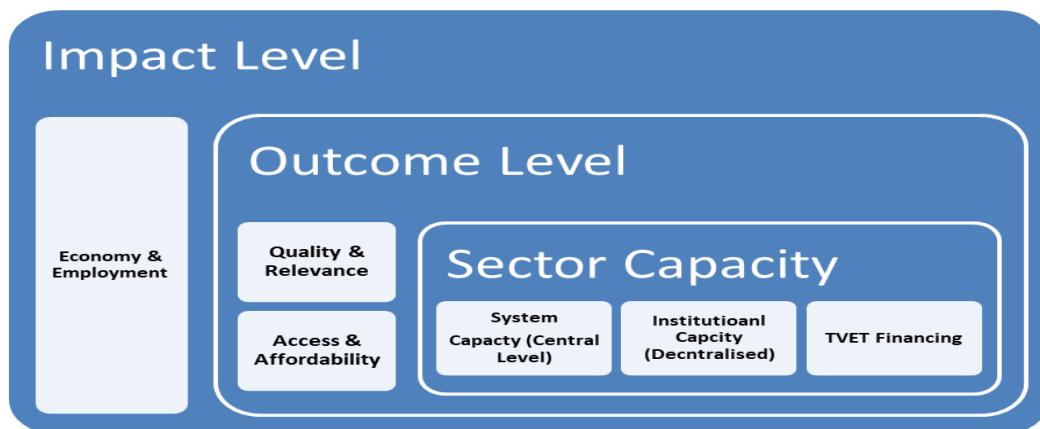
Adapting this results chain, the proposed SPMF will consist of the following components.

Result Levels consist of three primary components:

- Impact: This component basically is the wider arena where the long-term impact of TVET intervention is perceived. It informs about the overall condition of the national economy, employment and well-being, and prosperity of the actors.
- Outcome: This component includes two broad clusters representing the demand and supply side of TVET intervention and informs about the outcome of TVET interventions.
- Sector Capacity: This component includes key indicators that inform about TVET system capacity as a whole, capacity at the institute level and financial capacity.

Result Areas set out the broad policy pillars for the TVET sector under each Result Level

- Under the Impact Level, there is one result area on the "Economy and Employment".
- Under the Outcome level, two Results Areas are based on the TVET policy priorities: (i) Quality & Relevance and (ii) Access & Affordability.
- At the Sector Capacity Level, there are three Results Areas, largely drawn from the TMED TVET Action Plan: (i) TVET System Capacity; (ii) TVET Institute Capacity; and (iii) TVET Financing.

Thematic Objectives further articulate the policy priorities for the TVET under each Result Area, sector, drawing from the GoB policy document and the SPMF Working Group sector analysis.

SPMF Indicators are set out under each Thematic Objective to monitor its progress and performance monitoring.

- Under the Impact Level, the selected indicators are macro-level, and the primary data source is the Bangladesh Bureau of Statistics (BBS).
- Under the Outcome level, the selected indicators are sector-level and the data sources are BANBEIS, BTEB MIS and DTE HRMIS.
- At the Sector Capacity Level, the selected indicators combine output, input and process indicators. The data sources are BANBEIS, BTEB MIS, DTE HRMIS and Administrative Data.

The SPMF Structure is summarized in Table 1 below.

Table 1: SPMF 2021-25 Structure

Result Level	Result Areas	Thematic Objectives	Indicators	KPIs
Impact	Economy & Employment	1. Macro-Economy Growth and Stability 2. Employment & Unemployment 3. Youth Population	11	-
Outcomes	Quality & Relevance	4. Teacher Development & Deployment 5. Qualification & Certification 6. TVET Graduate & Employment 7. TVET Market Responsiveness 8. TVET Reputation & Image	27	10
	Access & Affordability	9. Access & Equity 10. Affordability	14	4
TVET Sector Capacity	System Capacity	11. Quality & Efficiency 12. Access & Equity 13. Management and Coordination	23	2
	Institutional Capacity		26	6
	TVET Financing	14. Budget Allocation 15. Budget Expenditure	11	2
Total	**6**	**15**	**112**	**24**

1.5.2 KEY PERFORMANCE INDICATORS (KPIS)

The Key Performance Indicators (KPIs), drawn from the list of SPMF indicators, represent the critical indicators of progress toward intended sector outcomes and results. KPIs focus on strategic and operational improvement, create an analytical basis for decision making and help focus attention on what matters most. The SPMF Working Group analyzed the current TVET scenario of Bangladesh and the changes that need to happen according to the policies and plans. The KPIs will help measure the changes in the TVET sub-sector over the medium term.

The list of SPMF KPIs, including Baseline, is shown in Table 2 below.

Table 2: SPMF 2021-25 Key Performance Indicators (KPI)

Result Level	Result Area	KPI	Indicators	Ref
Outcomes	*Quality & Relevance*	KPI 1	Teacher-Student ratio	
		KPI 2	Student per institutions	
		KPI 3	Teacher per institutions	
		KPI 4	% of teacher vacancy	
		KPI 5	Completion rate at Diploma Level	
		KPI 6	Completion rate at HSC (Voc) Level	
		KPI 7	Completion rate at SSC (Voc) Level	
		KPI 8	Drop-out rate at Diploma Level	
		KPI 9	Drop-out rate at HSC (Voc) Level	MBF
		KPI 10	Drop-out rate at SSC (Voc) Level	MBF
	Access Participation & Affordability	KPI 11	Gender Parity Index in TVET enrolment	MBF
		KPI 12	% of Girl's Participation in TVET	
		KPI 13	Proportion of youth (15–24 year) enrolled in TVET	
		KPI 14	% of students receive stipend	
TVET Sector Capacity	*System Capacity*	KPI 15	% of trained teachers	SDG
		KPI 16	% of Institutes score above 90% in APA	
	Institute Capacity	KPI 17	% of institutes admit students above 80% of seat capacity	
		KPI 18	% of TVET institute with TSR below 30	
		KPI 19	Enrolment rate of students with special needs	
		KPI 20	% TVET Institutes having expenditure capacity over 80%	
		KPI 21	% of institute have signed MoU with industry	
		KPI 22	% of graduates provided employment support service through job placement cell	
	TVET Financing	KPI 23	Total allocation for TVET as % of national budget	
		KPI 24	% Annual Increase in DTE Budget for Workshop Equipment	

1.6 TVET Annual Sector Performance Report (ASPR)

1.6.1 ASPR OVERVIEW

Bangladesh's TVET sector organizations exhibit specific characteristics that influence the demand and supply of performance information. Currently, there is an imbalance between the demand for and supply of performance information, primarily due to limited institutional capacity and data gaps. Development partners' increased involvement has amplified the demand for performance information, which remains unmet. In order to address this, the Annual Sector Performance Report (ASPR) serves as a vital tool. By providing statistical information based on approved KPIs, the ASPR supports evidence-based planning and decision-making at all TVET levels. The ASPR aims to improve data availability, reflect the current situation, and incorporate outputs from discrete TVET projects. It summarizes achievements, measures progress, and adheres to the RBM approach, fostering harmonized development within the TVET sub-sector.

1.6.2 ASPR PURPOSE AND OBJECTIVE

In this context of TVET in Bangladesh, the objectives of ASPR include:

Performance Evaluation: The primary goal of the ASPR is to comprehensively assess and evaluate the performance and progress of the TVET sub-sector. By using the key performance indicators (KPIs), targets, and benchmarks, it measures achievements, identifies strengths, weaknesses, challenges, and gaps within the TVET system. This evaluation helps in making informed policy and planning decisions by highlighting areas that require improvement.

Policy and Strategy Formulation: The ASPR plays a crucial role in informing the formulation of policies, strategies, and action plans for the development and enhancement of the TVET sub-sector. Through valuable insights and data-driven analysis, it identifies areas of priority, sets targets, and determines the necessary interventions for continuous improvement. This objective ensures that the TVET system remains aligned with national development goals.

Accountability and Transparency: By presenting a comprehensive overview on the performance of TVET sub-sector, the ASPR promotes accountability and transparency. It provides accurate and up-to-date information to stakeholders, including policymakers, government officials, educational institutions, and the general public. This transparency fosters trust and enables stakeholders to have a clear understanding of the progress and achievements within the TVET system.

Monitoring and Evaluation: The ASPR serves as a vital monitoring and evaluation tool for tracking the progress and effectiveness of TVET programs, initiatives, and policies over time. It allows stakeholders to identify trends, patterns, and assess the impact of interventions. This objective enables evidence-based decision-making and facilitates necessary adjustments to ensure the continuous improvement of TVET.

Stakeholder Engagement and Collaboration: The ASPR encourages stakeholder engagement and collaboration by providing a platform for dialogue, feedback, and exchange of ideas. It actively involves policymakers, educators, employers, industry representatives, and students in discussions regarding the improvement and advancement of TVET. This objective fosters a collective effort towards enhancing the TVET sub-sector.

Overall, the ASPR aims to promote evidence-based decision-making, continuous improvement, and effective management of the TVET sub-sector in Bangladesh. It supports the achievement of national development goals, enhances the quality and relevance of TVET programs, and contributes to the socioeconomic development of the country. By fulfilling its objectives, the ASPR plays a critical role in ensuring the success and positive impact of the TVET system in Bangladesh.

1.6.3 METHODOLOGY

The formulation of the TVET Annual Sector Performance Report (ASPR) in Bangladesh follows a systematic approach, encompassing the following steps:

a) **Formation of an ASPR Working Group:** The Directorate of Technical Education (DTE) established a working group consisting of relevant officials from TMED, Directorate of Technical Education (DTE), Bangladesh Technical Education Board (BTEB), National Skills Development Authority (NSDA), and Bangladesh Bureau of Educational Information and Statistics (BANBEIS), Bureau of Manpower, Employment and Training (BMET), Directorate of Agriculture Extension (DAE), Shipping and respective ministries,

b) **Conceptualization and Design**: A concept note was prepared to outline the process of formulating the TVET ASPR. It involves reviewing literature, data, and engaging stakeholders to understand the demand for and supply of TVET performance information. The note also highlights the ongoing transformations observed within the TVET sub-sector.

c) **Identification of Stakeholders**: Stakeholders were identified based on the Terms of Reference (TOR) of the Sector Performance Monitoring Framework (SPMF) working group and the strategic objectives of the TVET ASPR. Technical representatives from TMED, DTE, BTEB, NSDA, BANBEIS, MoA, Moe WOE and MoS are purposefully engaged, along with key informants from government TVET organizations.

d) **Inclusive Approach**: The formulation of the ASPR adopts an inclusive approach by involving stakeholders with direct and indirect involvement in TVET sector activities. This approach ensures diverse perspectives, collaboration, and a comprehensive understanding of challenges, opportunities, and priorities.

e) **Participatory Workshops and Discussions**: Participatory brainstorming workshops and buzz group discussions are conducted to facilitate active engagement and knowledge sharing among stakeholders. These sessions provide an opportunity for stakeholders to share their experiences, ideas, and concerns, shaping the content and direction of the ASPR.

f) **Data Collection and Processing**: A systematic approach is adopted for data collection and analysis during the formulation of the ASPR. Inputs from stakeholders are documented and subjected to a systematic analysis process. Relevant data and information are extracted, categorized, and utilized to inform the findings and analysis presented in the ASPR.

g) **Selection of Key Performance Indicators (KPIs):** From the initially developed 112 performance indicators identified under the TVET SPMF, the ASPR working group selects 24 key performance indicators (KPI) which was approved by TMED for generating the ASPR. The selection is based on data availability and relevance to the TVET sub-sector in Bangladesh.

Data Sources

A variety of data sources were utilized in the ASPR preparation. The primary source of data is the Educational Statistics Report of BANBEIS. Administrative data from key institutions

such as the DTE, BTEB, BMET, DAE and Shipping served as the primary sources of secondary data. Surveys conducted by organizations including the Bangladesh Bureau of Statistics (BBS), BTEB, and other published non-clustered data related to TVET were also used for comparative analysis.

Data Management and Analysis

Thematic subgroups within the ASPR working group identified valid data sources through a series of consultation meetings. Spreadsheet tools and statistical software such as SPSS were used for data management and analysis. Spreadsheets facilitated arithmetic calculations and basic statistical functions, while SPSS was employed for intermediate data management activities such as data aggregation and cleaning. Correlation and regression model analyses were performed using SPSS diagnostics to gain deeper insights from the collected data.

Administrative and Financial Performance Data Platforms

To analyze performance trends over the years, the ASPR took into account various administrative and financial performance data platforms of key institutions including the Directorate of Technical Education (DTE), Bangladesh Technical Education Board (BTEB), These platforms included reported data from institutes, DTE's Human Resource Management Information System (HRMIS), BMET/DAE/Shipping administrative data, BTEB's admission and result portal, the NTVQF system, NSDA's Skills portal, and the IBAS++ system for financial data. The administrative data will follow the financial year with the cut-off date of 30 June for annual reporting

Scope & Limitations for TVET ASPR

The TVET Annual Sector Performance Report presents a focused analysis based on a carefully selected set of key performance indicators. While an extensive framework of 112 potential indicators was initially identified, the 2023 and 2024 reports concentrate on 24 core KPIs due to current data availability constraints across the sector. These selected indicators provide a balanced representation of essential metrics while remaining practical for consistent measurement.

This report primarily incorporates data from the four participating ministries, though it does not yet capture the full spectrum of TVET activities conducted by other ministries, NGOs, and private organizations. To strengthen the analysis, the working group conducted targeted primary data collection using structured questionnaires from participating institutes, supplementing available secondary data. The resulting assessment establishes an important baseline for measuring sector performance while acknowledging opportunities for expansion in future editions as reporting mechanisms mature across the broader TVET system.

CHAPTER 2: SECTOR-LEVEL PERFORMANCE

The analysis of sector performance within the Technical and Vocational Education and Training (TVET) sub-sector is grounded in data from multiple authoritative sources. The primary source is the Bangladesh Education Statistics 2023, published by the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) in March 2024. Complementing this are critical insights drawn from an institute-level survey conducted by the Directorate of Technical Education (DTE) and administrative data provided by the Bangladesh Technical Education Board (BTEB). Together, these sources offer a comprehensive and reliable picture of the TVET sub-sector's performance and progress.

To facilitate a clearer understanding of recent trends and developments, Table 8 presents key statistics for the TVET sub-sector spanning the period from the baseline year 2020 through 2023.

Summary of KPI Performance

The SPMF comprises of 24 Key Performance Indicators (KPIs). Measuring against the Baseline Year of 2020, 12 out of 24 KPIs (50%) are trending upward, mostly notably in Sector Capacity KPIs. (See Table 3) The KPI Results for Year 2023, including the 4 participating ministries, is presented in Table 4.

Table 3: KPI Performance Summary 2023

Outcome Areas	Total Indicators	Improving	Declining	Limited or No Change
Quality & Relevance	10	6	3	1
Access, Participation & Affordability	4	2	0	2
Sector Capacity & Financing	10	7	1	2
Total:	24	15	4	5

*

Table 4: KPI Performance Results 2023

Results Level	Result Areas	No.	SPFM Indicators	2020 (Baseline)	BANBEIS	TMED	MoA	MoEWOE	MoS	Trending
Outcomes	Quality & Relevance	KPI 1	Teacher-Student Ratio	20.7	32.86	28.21	55.9	58	8.78	★
		KPI 2	Student per Institution	154	172	1074	633	841	214.88	★★
		KPI 3	Teacher per institution	7.44	5.22	15.66	11.33	15	28.38	★
		KPI 4	% of Teacher Vacancy	41.64		81.55	32.99	50.15	72.55	★
		KPI 5	Completion Rate at Diploma Level (%)	92.14	93.66		97.96		97.1	★★★
		KPI 6	Completion Rate at HSC (Voc) Level (%)	54.90	55.61				98.99	★★★
		KPI 7	Completion Rate at SSC (Voc) Level (%)	69.78	71.08					★★★
		KPI 8	Dropout Rate at Diploma Level (%)	7.86	6.34		2.06		2.9	★★★
		KPI 9	Dropout Rate at HSC (Voc) Level (%)	45.1	44.39				1.01	★★★
		KPI 10	Dropout Rate in SSC (Voc) Level (%)	30.22	28.95					★★★
	Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.37	0.42	0.21	0.45	0.39	0.14	★★
		KPI 12	% of Girls Participation in TVET	27.24	29.53	17.64	31.18	28	13.64	★★
		KPI 13	Proportion of Youth (15-24 year) Enrolled in TVET (%)	3.59	5.04					★★★
		KPI 14	% of Students Receive Stipend	36.91		77.74	79.68	100	14.34	★★★
Sector Capacity	System Capacity	KPI 15	% of Trained Teachers	37.82		24.53	100	38.39	50	★★★
		KPI 16	% of Institutes above 90% in APA Score	5.04			93.44	92.59	93.13	★★★
	Institute Capacity	KPI 17	% of Institutes above 80% of Enrolment/Seat Capacity	42.31		2.30	76.56	100	100	★★★
		KPI 18	% of TVET Institute with TSR Below 30	26.75		69.36		0		★★★
		KPI 19	Enrolment Rate of Students with Special Needs	0.19		0.53	0.502			★★★
		KPI 20	% TVET Institutes with Expenditure Capacity above 80%	64.6		56.06	100	99.07	100	★
		KPI 21	% of institute signed MoU with industry	66.88		66.68		20.37	12.50	★★
		KPI 22	% of Graduates Provided Employment Support Service through Job Placement Cell	21.15		21.15		33.63	51.00	★★
	TVET Financing	KPI 23	Allocation for TVET as % of National Budget	0.39		0.45	0.0075	0.03		★★★
		KPI 24	% Annual Increase in Workshop Equipment Budget	328.69		79.05	0	7.75		★★★

Note: ★★★ = improving; ★★ = limited/no change; ★ = declining

2.1   Sector Statistics and Results

The Technical and Vocational Education and Training (TVET) system in Bangladesh is primarily monitored through two key data sources: the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) and the Bangladesh Technical Education Board (BTEB).

BANBEIS, established in 1977 as an attached department of the Ministry of Education, is the designated government authority responsible for the collection, compilation, processing, and dissemination of educational statistics across all levels and streams of education in Bangladesh. This includes primary, secondary, higher education, technical, vocational, and madrasah education. As the official source of national education data, BANBEIS plays a vital role in supporting evidence-based policymaking and program planning.

BANBEIS conducts annual educational surveys, collecting detailed information on student enrolment, institutions, teachers, and educational outcomes. Its statistical reports serve as essential references for government agencies, development partners, and international organizations for monitoring progress, evaluating educational programs, and setting strategic priorities. Furthermore, BANBEIS provides technical assistance to the Ministry of Education and other directorates in developing and maintaining Management Information Systems (MIS), ensuring the accuracy and reliability of data across the education sector.

The bureau also undertakes specialized surveys, including studies on dropout rates, gender parity, and equity, and supports ICT training for education personnel. All official educational statistics published by the government are sourced through BANBEIS, guaranteeing consistency and standardization in national reporting.

In the context of the Sector Performance Monitoring Framework (SPMF), analysis of Key Performance Indicators (KPIs) at the sector level relies heavily on the BANBEIS Annual Education Statistics 2023. Of the 24 KPIs outlined in the SPMF for the TVET sub-sector, BANBEIS data enables reporting on 12 KPIs, demonstrating its central role in tracking sector performance and supporting continuous improvement across Bangladesh's education system.

2.1.1 STATISTICAL HIGHLIGHTS

Institutes:

The TVET sector in Bangladesh has experienced robust and sustained expansion in recent years, underscoring the nation's growing commitment to skills development and workforce readiness.

Total Institutes: The number of TVET institutions rose significantly from 7,259 in 2020 to 10,595 in 2023, marking a 46% increase over just four years. This surge reflects broad national efforts to widen access to technical and vocational education.

Public Institutes: Public sector participation expanded notably, with the number of government-run institutes increasing from 678 in 2020 to 1,028 in 2023—a 52% rise. This growth indicates the government's strategic investment in building foundational infrastructure for technical education.

Private Institutes: The private sector also played a pivotal role, with the number of private TVET institutions growing from 6,581 in 2020 to 9,567 in 2023, representing a 45% increase. This demonstrates strong private sector engagement and demand-driven growth in vocational training provision.

This overall expansion—across both public and private sectors—illustrates Bangladesh's intensified focus on scaling up technical and vocational education as a cornerstone of its human capital development agenda. The rising number of institutes is a key indicator of the sector's capacity-building momentum and reflects progress toward national goals for inclusive and industry-aligned education.

Teachers: The TVET sector has experienced modest but steady growth in its teaching workforce. The total number of teachers increased from 54,028 in 2020 to 55,338 in 2023, representing a 2.4% growth. Notably, the proportion of female teachers has risen more substantially, from 10,915 in 2020 to 13,575 in 2023, a 24.4% increase, demonstrating progress toward greater gender diversity in the teaching staff. Meanwhile, male teachers showed a slight decrease from 43,113 to 41,763 (3.1% decline) during the same period. This shift indicates an evolving composition of the teaching workforce that increasingly incorporates more female educators.

Students: Student enrolment has surged dramatically across all categories in the TVET sector. Total enrolment increased from 1,118,334 in 2020 to 1,818,522 in 2023, representing a substantial 62.6% growth. Female student participation has shown particularly impressive gains, rising from 304,682 in 2020 to 536,923 in 2023, a 76.2% increase. Male enrolment also grew significantly from 813,652 to 1,281,599, a 57.5% rise. This pronounced increase in student numbers, particularly among female learners, indicates growing recognition of TVET's value and expanding access to technical and vocational training opportunities.

These statistical trends illustrate the positive development within the TVET sector in Bangladesh. The consistent growth in institutes, teaching staff diversity, and student enrolment across both genders demonstrates the sector's expanding capacity and reach. This progress aligns with the ongoing efforts to strengthen Bangladesh's technical and vocational education system and enhance skill development opportunities for its population.

Table 5: Summary Key TVET Statistics (2020-2023)

Year	Management	No. of Institutes	Teachers			Students		
			Total	Female	Male	Total	Female	Male
2020 (Baseline)	Public	678	10,662	1,742	8,920	347,652	72,245	275,407
	Private	6,581	41,955	8,895	33,060	770,682	232,437	538,245
	Total	7,259	54,028	10,915	43,113	1,118,334	304,682	813,652
2021	Public	678	10,665	1,745	8,920	340,020	64,284	275,736
	Private	7,083	44,277	9,524	34,753	824,860	251,776	573,084
	Total	7,761	54,942	11,269	43,673	1,164,880	316,060	848,820
2022	Public	691	10,683	1,753	8,930	342,710	65,002	277,708
	Private	7,128	44,621	9,593	35,028	886,493	268,407	618,086
	Total	7,819	55,304	11,346	43,958	1,229,203	333,409	895,794
2023	Public	1,028	12,011	2,725	9,286	419,735	86,735	333,000
	Private	9,567	43,327	10,850	32,477	1,398,787	450,188	948,599
	Total	10,595	55,338	13,575	41,763	1,818,522	536,923	1,281,599

Source: Bangladesh Education Statistics 2024, BANBEIS

Table 6 below presents a summary of Key Performance Indicators (KPIs) for the TVET sub-sector from 2020 to 2023. These results are calculated based on BANBEIS Annual Education Statistics 2023, which covers 12 out of the 24 KPIs at the sector level.

Table 6: Sector-Level Performance Results (2020-23)

Result Areas	No.	SPFM Indicators	2020 (Baseline)	2021	2022	2023
Quality & Relevance	KPI 1	Teacher Student Ratio	20.70	21.20	22.23	32.86
	KPI 2	Student per Institution	154	150	157	172
	KPI 3	Teacher per institution	7.44	7.08	7.07	5.22
	KPI 5	Completion Rate at Diploma Level (%)	92.14	92.18	92.32	93.66
	KPI 6	Completion Rate at HSC (Voc) Level (%)	54.9	55.16	55.43	55.61
	KPI 7	Completion Rate at SSC (Voc) Level (%)	69.78	69.81	70.68	71.08
	KPI 8	Dropout Rate at Diploma Level (%)	7.86	7.82	7.68	6.34
	KPI 9	Dropout Rate at HSC (Voc) Level (%)	45.1	44.84	44.57	44.39
	KPI 10	Dropout Rate in SSC (Voc) Level (%)	30.22	30.19	29.32	28.95
Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.37	0.37	0.37	0.42
	KPI 12	% of Girls Participation in TVET	27.24	27.13	27.12	29.53
	KPI 13	Proportion of Youth (15-24 year) Enrolled in TVET (%)	3.59	3.63	3.76	5.04

Source: Source: Bangladesh Education Statistics 2024, BANBEIS

2.1.2 KPI PERFORMANCE

KPI 1: Teacher- Student Ratio (TSR)

KPI 1 measures the average number of students per teacher within a specific academic year. It is calculated by dividing the total number of enrolled students by the total number of teachers.:

$$KP\ 1 = Total\ Enrolment\ in\ TVET\ /\ Total\ Teachers\ in\ TVET$$

In 2023, the Teacher-Student Ratio (KPI 1) was 32.86, as illustrated in Figure 1.

Figure 1: Teacher Student Ratio 2020-2023

	2020 (Baseline)	2021	2022	2023
Public	32.61	31.88	32.08	34.95
Private	18.37	18.63	19.87	32.28
All	20.70	21.20	22.23	32.86
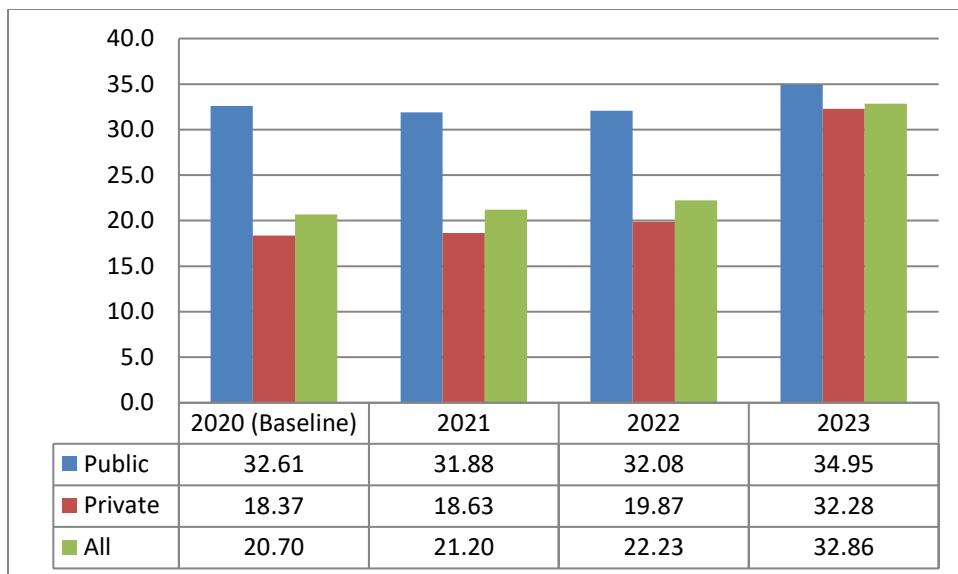
Source: BANBEIS Education Statistics 2024

The Teacher-Student Ratio is a key indicator of educational quality and resource allocation within the TVET (Technical and Vocational Education and Training) sector. It provides critical insight into the level of individualized attention and support that students are likely to receive. Between 2020 and 2023, the Teacher-Student Ratio exhibited a notable upward trend, rising from 20.70 to 32.86 students per teacher—an increase of nearly 59%. This sharp rise underscores mounting pressure on teaching resources across the sector. When disaggregated by management type:

- Public institutions saw a more modest increase, with the ratio rising from 32.61 to 34.95—a 7% growth.
- Private institutions, however, experienced a dramatic surge, with the ratio climbing from 18.37 to 32.28, representing a 76% increase.

This trend is primarily driven by the rapid expansion in student enrolment, which grew by approximately 63% during the same period. In contrast, the teaching workforce grew by

only 2.4%, highlighting a significant imbalance. As a result, teachers are facing larger classroom sizes and heavier instructional loads, potentially impacting the quality of education and student outcomes.

KPI 2: Student per Institute

KPI 2 measures the average number of students per Technical and Vocational Education and Training (TVET) institute. It is calculated by dividing the total number of enrolled students by the total number of TVET institutes:

KPI 2 = Total Enrolled Students / Total Number of TVET Institutes

In 2023, KPI 2 was recorded at 172 students per institute, indicating the average student population across all TVET institutes (see Figure 2 below).

Figure 2: Student Per Institution 2020-2023

	2020 (Baseline)	2021	2022	2023
■ Public	513	502	496	408
■ Private	117	116	124	146
■ All	154	150	157	172
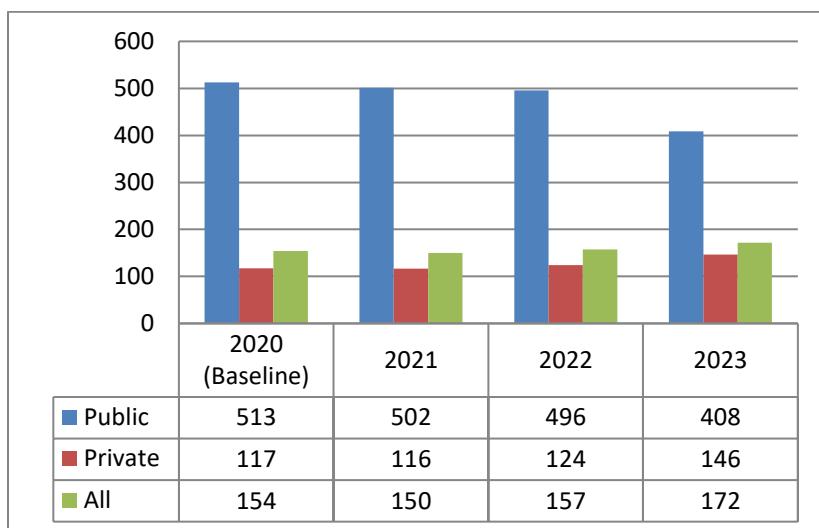
Source: Bangladesh Education Statistics 2024, BANBEIS

The Student per Institute (SPI) indicator serves as a key measure of institutional capacity and utilization within the Technical and Vocational Education and Training (TVET) sector. It reflects the average student enrollment per institute and offers insights into potential resource allocation and operational efficiency across the system.

Between 2020 and 2023, the SPI demonstrated an upward trend, increasing from 154 to 172, which represents a 12% growth over the four-year period. This trend highlights a notable imbalance in growth rates, with student enrollment rising by 63%, compared to a 46% increase in the number of institutions, leading to larger average student populations per institute.

A significant disparity remains between public and private institutions. In 2023, public institutes reported an average SPI of 408, while private institutes recorded 146. Although the gap has narrowed slightly compared to previous years, public institutions continue to accommodate substantially larger student populations.

This difference can be attributed to several factors. Public institutions generally have greater physical infrastructure, offer a broader range of programs, and charge lower tuition fees, making them more accessible and capable of enrolling higher numbers. In contrast, private institutions are often smaller in scale and frequently located in rural or less populated areas, which naturally limits their enrollment capacity and contributes to lower SPI values.

KPI 3: Teacher per Institution

KPI 3 represents the average number of teachers per Technical and Vocational Education and Training (TVET) institute. It is calculated by dividing the total number of teachers by the total number of TVET institutes:

KPI 3 = Total Number of Teachers / Total Number of TVET Institutes

In 2023, the KPI 3 value was 5.22 teachers per institute, indicating the average teaching workforce available at each TVET institution (see Figure 3 below).

Figure 3: Teacher Per Institution 2020-2023

	2020 (Baseline)	2021	2022	2023
Public	15.73	15.73	15.46	11.68
Private	6.38	6.25	6.26	4.53
All	7.44	7.08	7.07	5.22
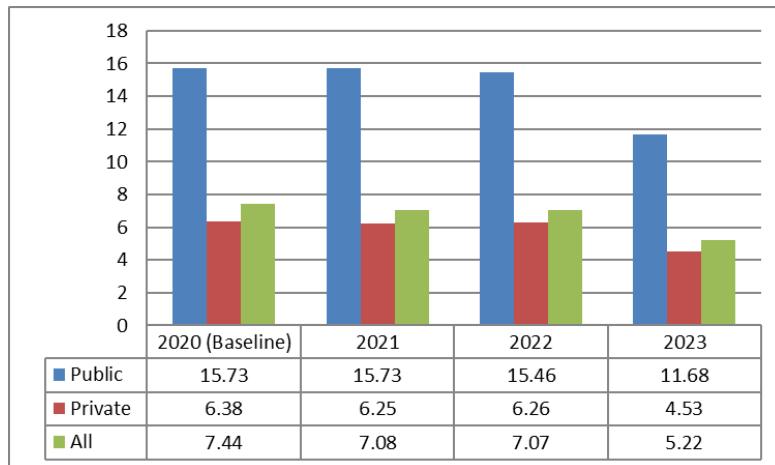
Source: Bangladesh Education Statistics 2024, BANBEIS

The Teacher per Institution (TPI) ratio is a critical measure of staffing adequacy and the distribution of teaching resources within the TVET sector. It provides valuable insight into whether institutions have sufficient instructional capacity to deliver quality vocational education.

From 2020 to 2023, the TPI experienced a steady decline, falling from 7.44 to 5.22, representing a 30% decrease. This downward trend is evident across both public and private sectors: public institutions saw a reduction from 15.73 to 11.68 teachers per institute (a 26% decrease), while private institutions declined from 6.38 to 4.53 (a 29% decrease).

The primary driver behind this decline is the rapid expansion of TVET institutions, which increased by 46% over the period, contrasted with a modest 2.5% growth in teaching staff. This imbalance has led to a thinner distribution of educators across an increasingly large network of institutions.

The persistently lower TPI in private institutions—4.53 teachers per institution in 2023 compared to 11.68 in public institutions—raises concerns about potentially limited teaching resources in the private sector. This disparity may affect the quality of education and restrict the diversity of specialized courses offered, as technical and vocational education requires instructors with various expertise to effectively cover a broad range of trades and subjects.

KPI 5: Completion Rate at Diploma Level

KPI 4 measures the completion rate at the Diploma level within the TVET system. Specifically, it represents the percentage of students who began the first semester of a Diploma-level program and successfully completed the eighth semester within the prescribed duration (i.e., the standard program length).

KPI 4 = (Number of students completing 8th semester on time / Number of students who started 1st semester) × 100

In 2023, the KPI 4 value - Diploma-Level Completion Rate - was 93.66%, indicating a high level of on-time program completion among Diploma students (see Figure 4 below).

Figure 4: Completion Rate at Diploma level 2020-2023
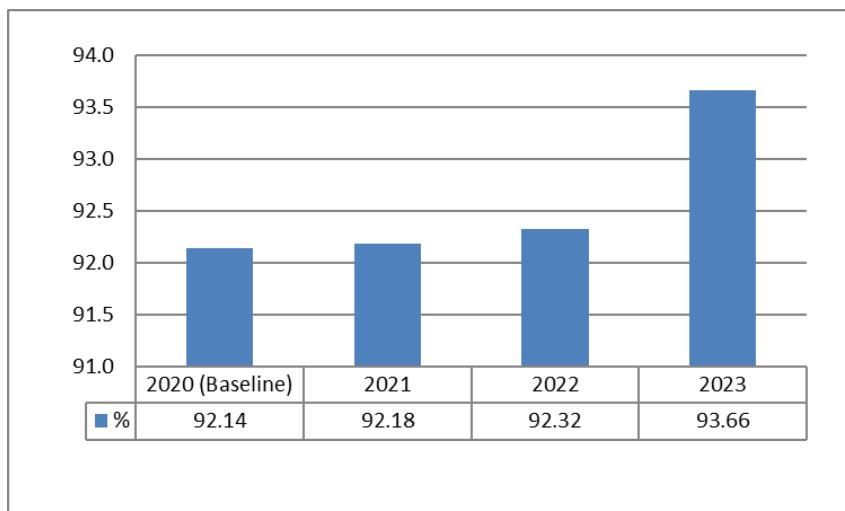
%	2020 (Baseline)	2021	2022	2023
	92.14	92.18	92.32	93.66

Source: Bangladesh Education Statistics 2024, BANBEIS

The Completion Rate at Diploma Level is a key indicator of educational effectiveness and student success within the TVET system. It reflects the sector's capacity to retain students and guide them to complete their programs within the expected timeframe, thereby supporting the achievement of their educational and career goals.

Between 2020 and 2023, the completion rate increased from 92.14% to 93.66%, showing a steady upward trend. The most notable improvement occurred between 2022 and 2023, with a 1.34 percentage point increase, underscoring continued progress in student retention and program completion.

This high and rising completion rate suggests that diploma programs are delivering education effectively, supported by improvements in several key areas. Contributing factors likely include:

- Enhanced teaching methodologies
- Improved curriculum alignment with industry needs
- Stronger student support services
- Increased relevance and accessibility of diploma-level training

It is important to note that the calculation methodology used by BANBEIS is based on a cohort-tracking approach typically applied in general education. As such, it may not fully reflect the semester-based structure and flexible admission patterns characteristic of diploma engineering programs. Despite this methodological limitation, the consistent upward trend in completion rates provides strong evidence of positive outcomes and growing institutional effectiveness in diploma-level technical education.

KPI 6: Completion Rate at HSC (Vocational) Level

KPI 6 measures the Completion Rate at the Higher Secondary Certificate (HSC) Vocational level. It reflects the percentage of students who enrolled in the first year/grade of an HSC (Vocational) program and successfully completed the final year/grade within the standard duration of the program.

KPI 6 = (Number of students completing final year on time / Number of students who started first year) × 100

In 2023, the KPI 6 value - HSC (Vocational) Level Completion Rate - stood at 55.61%, indicating that just over half of the students who began vocational programs at the HSC level completed them within the expected timeframe (see Figure 5 below).

Figure 5: Completion Rate at HSC (Vocational) level 2020-2023
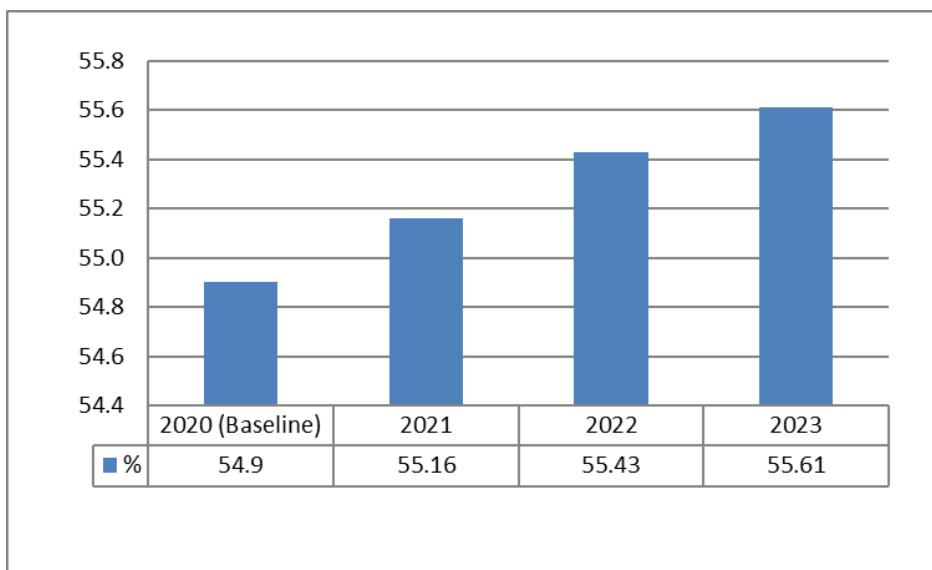
	2020 (Baseline)	2021	2022	2023
%	54.9	55.16	55.43	55.61

Source: Bangladesh Education Statistics 2024, BANBEIS

The Completion Rate at the Higher Secondary Certificate (HSC) Vocational level is a key indicator of system efficiency and the ability of the TVET sector to guide students through to the successful conclusion of their higher secondary vocational education. It reflects not only retention but also the system's capacity to support students in navigating this critical stage of their educational pathway.

From 2020 to 2023, the HSC (Vocational) completion rate increased marginally from 54.9% to 55.61%, reflecting a 0.71 percentage point gain. While the improvement is modest, the steady upward trajectory indicates gradual progress in addressing retention and completion challenges at this level.

However, the completion rate at HSC (Vocational) remains significantly lower than that of other TVET levels—93.66% at the Diploma level and 71.08% at the SSC (Vocational) level. This comparatively lower rate suggests that HSC (Vocational) programs may face unique barriers to student progression and completion. Several factors may contribute to this gap:

♦ The specialized and demanding nature of vocational training at this level
♦ Misalignment between program content and evolving labor market needs
♦ Limited career counseling or pathways for progression to higher education or employment
♦ Financial pressures, leading students to exit early for work opportunities
♦ Uncertainty about the long-term value of completing vocational education at this stage

The HSC (Vocational) level represents a pivotal transition point, where students are making critical decisions about whether to enter the workforce or pursue further education. The relatively low completion rate highlights the need for targeted interventions—such as enhanced academic support, career guidance, and clearer articulation pathways—to better support students in completing their programs and preparing for successful futures.

KPI 7: Completion Rate at SSC (Vocational) Level

KPI 7 tracks the Completion Rate at the Secondary School Certificate (SSC) Vocational level, reflecting the percentage of students who enrolled in the first year/grade of an SSC (Vocational) program and successfully completed the final year/grade within the prescribed timeframe.

KPI 7 = (Number of students completing final year on time / Number of students who started first year) × 100

In 2023, the KPI 7 value—SSC (Vocational) Level Completion Rate—was 71.08%, indicating that just over seven in ten students completed their vocational secondary education on time (see Figure 6 below).

Figure 6: Completion Rate at SSC (Vocational) level 2020-2023
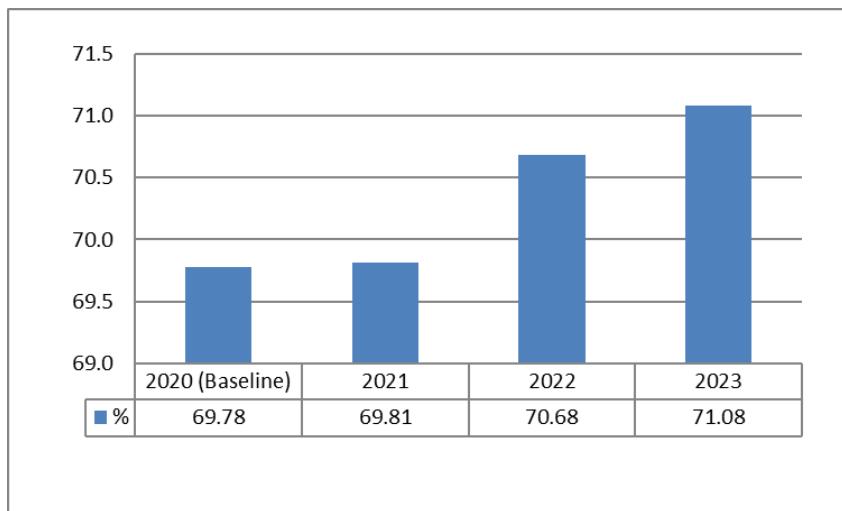
	2020 (Baseline)	2021	2022	2023
%	69.78	69.81	70.68	71.08

Source: Bangladesh Education Statistics 2024, BANBEIS

The Completion Rate at the Secondary School Certificate (SSC) Vocational level is a key indicator of the effectiveness of foundational technical education. It reflects the system's ability to retain students through the full duration of their secondary-level vocational programs and support them in achieving recognized qualifications.

From 2020 to 2023, the completion rate rose from 69.78% to 71.08%, marking a 1.3 percentage point improvement over four years. The most notable progress occurred between 2021 and 2022, with an increase of 0.87 percentage points, signaling accelerated improvement during that period.

This upward trend suggests that ongoing policy initiatives, curriculum enhancements, and improved teaching methodologies are positively impacting student retention and completion outcomes at the SSC (Vocational) level. The comparatively higher completion rate at this level—71.08% in 2023, versus 55.61% at the HSC (Vocational) level—indicates that foundational technical education is being effectively delivered, although transition and retention challenges increase at higher levels. Several factors likely contribute to the positive trajectory:

- Improved teaching quality and classroom practices
- Curriculum better aligned with student interests and local labor needs
- Expanded student support services, including academic and career counseling

There is growing awareness among students and families about the benefits of completing vocational education at the secondary level. The accelerated gains between 2021 and 2022 may reflect the impact of targeted interventions or reforms introduced during that period, underscoring the importance of evidence-based policy and programmatic support for vocational education.

KPI 8: Drop-out Rate at Diploma Level

KPI 8 measures the Drop-Out Rate at the Diploma level within the TVET system. It represents the percentage of students enrolled in Diploma-level programs who, for any reason, leave their educational institution and do not return to complete the program within the same academic year. In 2023, the Drop-Out Rate at the Diploma level was 6.34%, indicating that just over six percent of students discontinued their studies without completing the year (see Figure 7 below).

Figure 7: Dropout Rate at Diploma Level 2020-2023

	2020 (Baseline)	2021	2022	2023
■ %	7.86	7.82	7.68	6.34
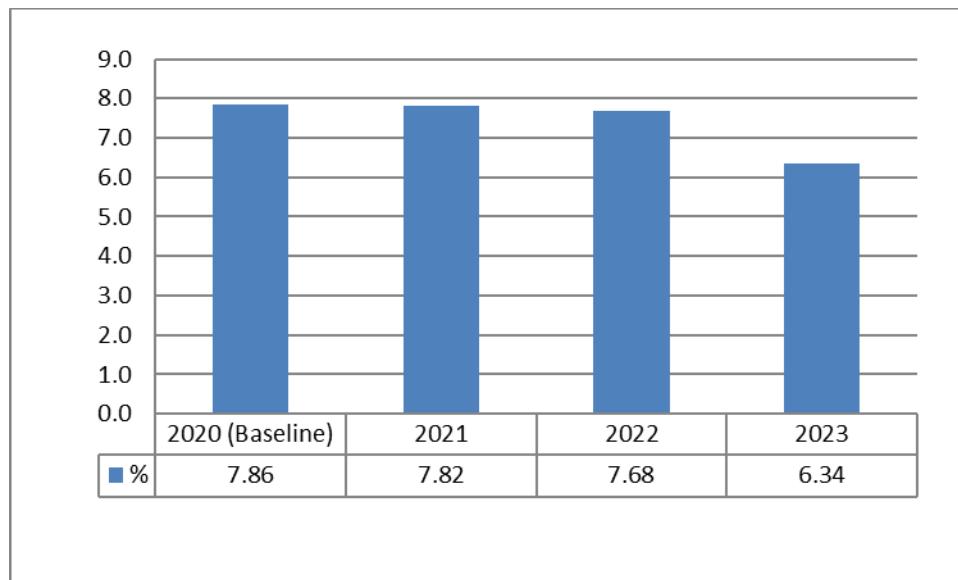
Source: Bangladesh Education Statistics 2024, BANBEIS

The Drop-out Rate at the Diploma level is a crucial indicator of student retention challenges within higher technical education. It directly impacts workforce development outcomes and reflects the efficiency of educational resource utilization.

From 2020 to 2023, the dropout rate steadily declined from 7.86% to 6.34%, marking a positive reduction of 1.52 percentage points, or approximately 19.3% improvement over four years. The most notable decrease occurred between 2022 and 2023, with a 1.34 percentage point drop.

This downward trend signals increasing effectiveness of retention strategies and student support mechanisms in diploma programs. The relatively low and decreasing dropout rate suggests that diploma-level education is increasingly successful in engaging students and fulfilling their academic expectations. Key contributing factors likely include:

- Enhanced teaching methodologies
- Improved curriculum relevance aligned with industry needs
- Strengthened student support services

When compared with other levels, the diploma dropout rate of 6.34% (2023) is substantially lower than the dropout rates at HSC (Vocational) level (44.39%) and SSC (Vocational) level (28.95%). This disparity implies that diploma programs benefit from more effective institutional structures, stronger support systems, or greater student motivation and commitment. Coupled with the high Completion Rate at Diploma Level (93.66% in 2023, KPI 5), these statistics collectively illustrate a robust picture of student retention and success at the diploma stage of technical education.

KPI 9: Drop-out Rate at HSC (Vocational) Level

KPI 9 measures the Drop-Out Rate at the Higher Secondary Certificate (HSC) Vocational level. It represents the percentage of students enrolled in HSC (Vocational) programs who, for any reason, leave their educational institution and do not return to complete the program within the same academic year. In 2023, the Drop-Out Rate at the HSC (Vocational) level was 44.39%, indicating that nearly half of the students discontinued their studies without completing the year (see Figure 8 below).

Figure 8: Dropout Rate at HSC (Vocational) level 2020-2023
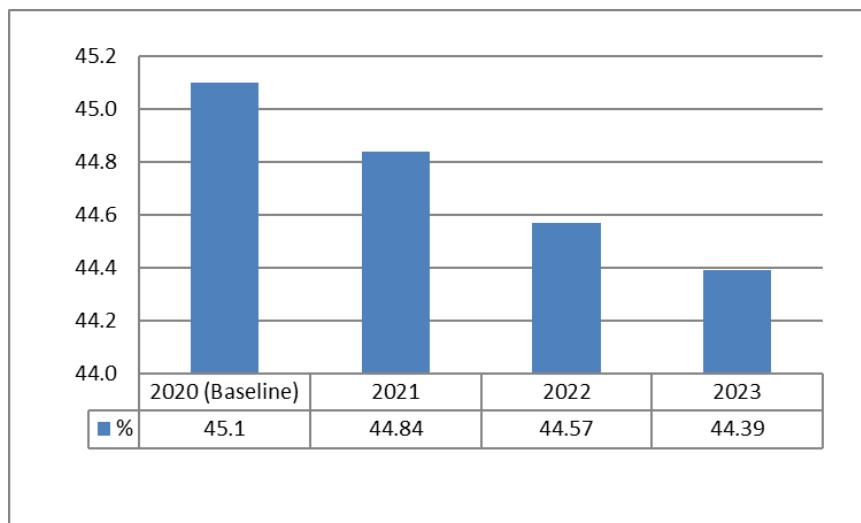
	2020 (Baseline)	2021	2022	2023
%	45.1	44.84	44.57	44.39

Source: Bangladesh Education Statistics 2024, BANBEIS

This KPI is also a key performance indicator in the TMED Medium Term Budget Framework (MTBF) with the following targets (*see Table 7*).

Table 7: MTBF Targets for HSC (Vocational) Dropout Out Rates

KPI	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2025
	Targets	Actual	Targets	Actual	Targets	Actual	Targets	Actual	Target
Drop-out rate HSC (Voc) (%)	42.12	45.10	40.34	44.84	43.62	44.57	43.60	44.39	43.12

Source: TMED MTBF 2024/25

The Drop-out Rate at the Higher Secondary Certificate (HSC) Vocational level is a critical indicator of the TVET system's effectiveness in retaining students during the higher secondary phase of vocational education. High dropout rates at this level signal significant inefficiencies and lost opportunities in developing a skilled workforce.

Between 2020 and 2023, the dropout rate at this level declined modestly from 45.1% to 44.39%, a reduction of 0.71 percentage points. While the improvement is slight, the consistent downward trend is a positive sign. This indicator is also monitored within the TMED Medium-Term Budgetary Framework (MTBF). However, the actual rate of 44.39% in 2023 remains slightly above the MTBF target of 43.60%, indicating a shortfall in meeting planned retention goals.

Despite the marginal progress, the dropout rate at HSC (Vocational) remains alarmingly high—especially when compared to 6.34% at the Diploma level and 28.95% at the SSC (Vocational) level in 2023. This means that nearly half of the students entering HSC (Vocational) programs do not complete their studies, resulting in a substantial efficiency loss and undermining the broader goals of the TVET system. The persistently high dropout rates suggest systemic challenges, including:

- Inadequate career guidance and counseling
- Limited awareness of the long-term value of vocational education
- Gaps in practical, hands-on training opportunities
- Misalignment between curriculum content and labor market needs
- Restricted pathways for higher education or employment progression after graduation

The slow pace of improvement—averaging only 0.24 percentage points annually—indicates that current interventions, while somewhat effective, may not be sufficiently addressing the root causes of attrition. A more targeted, evidence-based approach is needed to reduce dropout rates meaningfully and ensure better outcomes for HSC (Vocational) students.

The Drop-out Rate at HSC (Vocational) Level is a crucial indicator of system effectiveness and student retention challenges at the higher secondary vocational level.

The Drop-out Rate at HSC (Vocational) Level has demonstrated a gradual improvement, decreasing from 45.1% in 2020 to 44.39% in 2023. While this represents only a modest reduction of 0.71 percentage points over the four-year period, the consistent downward

trend is encouraging. Notably, this KPI is also tracked in the TMED Medium Term Budget Framework (MTBF), where the actual dropout rate of 44.39% in 2023 remains slightly higher than the target of 43.60%.

Despite the positive direction, the dropout rate at HSC (Vocational) Level remains alarmingly high compared to other educational levels (44.39% versus 6.34% at Diploma and 28.95% at SSC Vocational levels in 2023), indicating significant challenges in student retention. This means that nearly half of the students who begin HSC (Vocational) programs do not complete them, representing a substantial efficiency loss in the educational system.

The consistently high rates suggest structural issues that may include inadequate career guidance, limited awareness of vocational education benefits, insufficient practical training opportunities, misalignment between curriculum and industry needs, and possibly limited higher education pathways for HSC (Vocational) graduates. The slow pace of improvement (averaging about 0.24 percentage points annually) indicates that current interventions, while having some positive impact, may not be sufficiently addressing the fundamental causes of student attrition.

KPI 10: Drop-out Rate at SSC (Vocational) Level

The definition of KPI 10 is: "The percentage of students at SSC (Vocational) level of any reason leave educational institutes and did not come back to finish the grade or level during that school years of that level of education." In 2023, the value of KPI 9: Drop-Out Rate SSC (Vocational) Level = 28.95 (*see Figure 9 below*)

Figure 9: Dropout Rate at SSC (Voc) level 2020-2023
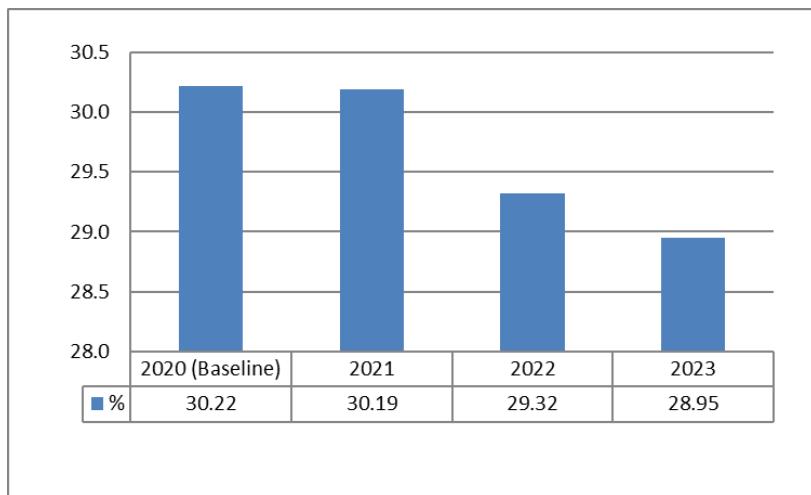
	2020 (Baseline)	2021	2022	2023
%	30.22	30.19	29.32	28.95

Source: Bangladesh Education Statistics 2024, BANBEIS

This KPI is also a key performance indicator in the TMED Medium Term Budget Framework (MTBF) with the following targets *(See Table 8)*

Table 8: MTBF Targets for SSC (Vocational) Droput Out Rates

KPI	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2025
	Targets	Actual	Targets	Actual	Targets	Actual	Targets	Actual	Target
Drop-out rate in SSC (Voc)(%)	30.15	30.22	30.15	30.19	28.25	29.32	27.18	28.95	27.40

Source: TMED MTBF 2023/24

The Drop-out Rate at SSC (Vocational) Level serves as a foundational indicator of student retention within the TVET system, measuring the percentage of students who leave their educational institutions without completing their studies during the academic year. In 2023, this rate stood at 28.95%, continuing a positive trajectory of improvement that has been sustained over recent years. The consistent decline from 30.22% in 2020 to 28.95% in 2023 represents a meaningful reduction of 1.27 percentage points, demonstrating the effectiveness of ongoing retention initiatives at this critical educational level.

The performance trajectory shows encouraging progress when viewed over a longer timeframe and against established targets. This KPI is monitored within the TMED Medium-Term Budgetary Framework (MTBF), and while the 2023 actual rate of 28.95% remains above the target of 27.18%, the gap has been steadily narrowing. Building on the downward trend observed from 34.18% in 2018 to 29.32% in 2022, the further reduction to 28.95% in 2023 indicates that systematic efforts to address student retention challenges are yielding sustained results. This multi-year improvement pattern suggests that interventions targeting career guidance, awareness building about vocational education benefits, and support for students facing academic or socioeconomic challenges are having a cumulative positive impact.

Within the broader TVET landscape, the SSC (Vocational) dropout rate of 28.95% in 2023 occupies a middle position between the diploma level (6.34%) and HSC (Vocational) level (44.39%). This positioning reflects the unique characteristics and challenges of secondary vocational education, where students are making initial career pathway decisions. The continued improvement at this foundational level is particularly significant, as successful retention at SSC (Vocational) programs creates stronger pathways for students to progress to higher levels of technical education or enter the skilled workforce.

KPI 11: Gender Parity Index in TVET

The definition of KPI 11 is "*The Ratio of female to male of a given indicator*". The Gender Parity Index (GPI) measures progress towards gender parity in TVET participation and/or learning opportunities available for women in relation to those available to men. It also reflects the level of women's empowerment in society. It is calculated by dividing the female value of a given indicator by that of the male. In 2023, the value of KPI 11: Gender Parity Index in TVET = 0.42(*see Figure 10 below*).

Figure 10: Gender Parity Index in TVET

	2020 (Baseline)	2021	2022	2023
■ Public	0.26	0.23	0.23	0.26
■ Private	0.43	0.44	0.43	0.47
■ All	0.37	0.37	0.37	0.42
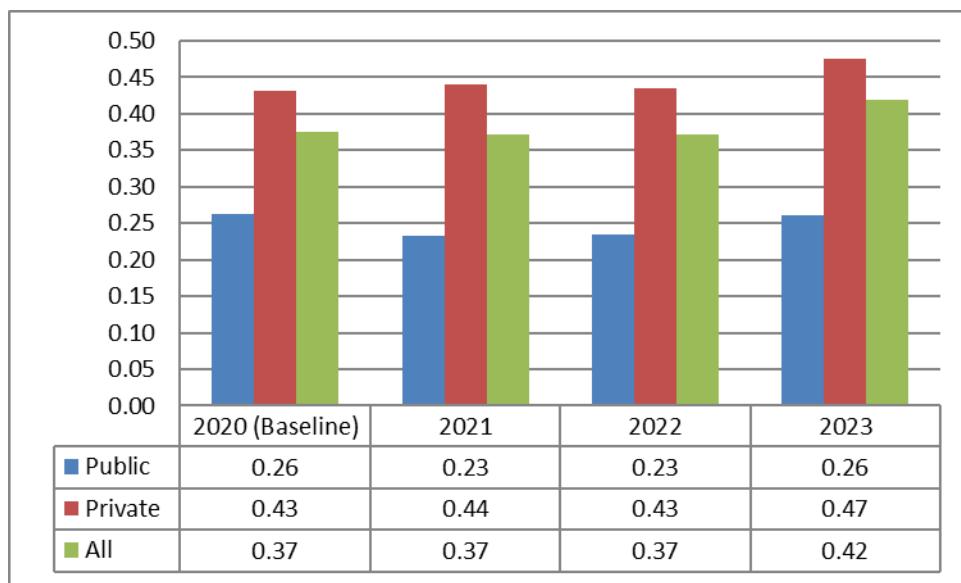
Source: BANBEIS Education Statistics 2024

This KPI is also a SDG4 indicator with the following milestones. *(See Table 9)*

Table 9: SDG Target on GPI for Technical Education

	Baseline Data (2015)	Mileston e 2020	Mileston e 2025	Mileston e 2030
4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data becomes available) for all education indicators on this list that can be disaggregated	0.38	0.41	0.57	0.70

Source: SDG Monitoring Framework, Bangladesh

The Gender Parity Index (GPI) in TVET Enrolment is a critical indicator for measuring progress toward gender equality in technical and vocational education, reflecting the relative access and participation of females compared to males. This metric aligns with global sustainable development commitments and provides insights into the effectiveness of gender-inclusive policies in the TVET sector.

The Gender Parity Index (GPI) in TVET Enrolment has shown improvement, increasing from the baseline value of 0.37 in 2020 to 0.42 in 2023. After remaining stable at 0.37 from

2020 through 2022, there was a notable improvement in 2023, suggesting accelerated progress in female participation relative to males. This value indicates that for every 100 male students enrolled in TVET programs, there are approximately 42 female students.

The analysis by management type reveals significant disparities, with private institutions consistently maintaining higher gender parity (increasing from 0.43 in 2020 to 0.47 in 2023) compared to public institutions (which remained at 0.26 in 2020 and 2023, with a dip to 0.23 in 2021-2022). This substantial difference of more than 20 percentage points suggests that private institutions may be more accessible or appealing to female students, possibly due to factors such as location, course offerings more aligned with female interests, or more supportive institutional environments.

Figure 11: Gender Parity Index in TVET by Level 2020-23

	2020 (Baseline)	2021	2022	2023
Traiing				0.48
SSC (Voc)	0.49	0.48	0.48	0.42
HSC (Voc)	0.41	0.41	0.41	0.42
Diploma	0.22	0.23	0.23	0.36
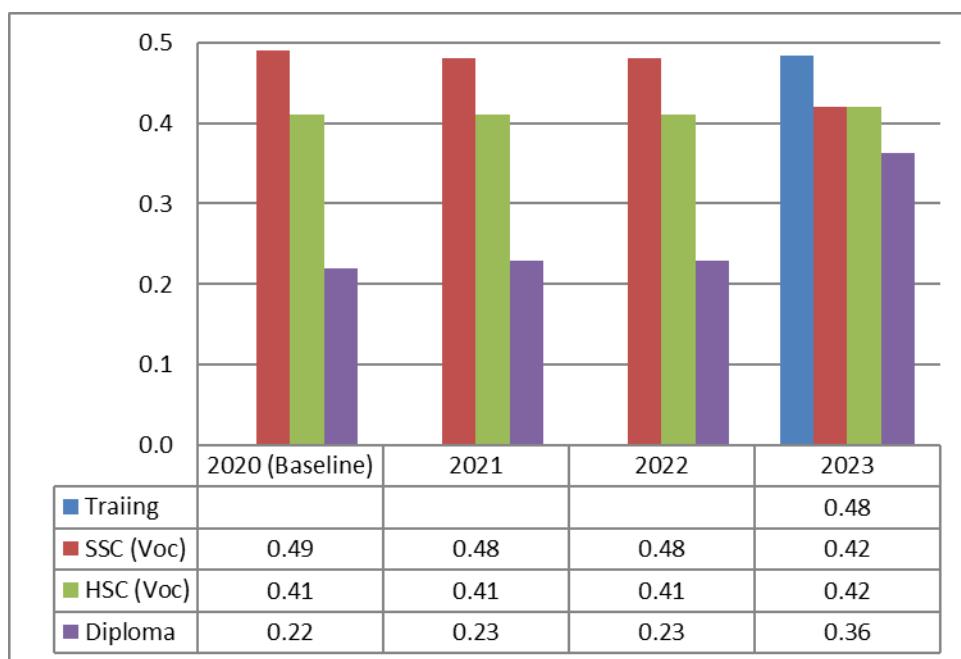
Note: Training include: Basic Trade Course (360 hrs.), Certificate Course and others

Source: Bangladesh Education Statistics 2024, BANBEIS

When examining GPI by educational level in 2023, training programs showed the highest GPI (0.48), followed by SSC (Vocational) and HSC (Vocational) both at 0.42, while Diploma programs had the lowest at 0.36. This pattern suggests that shorter, more flexible training programs may be more accessible to female students compared to longer-term diploma programs. Despite having the lowest GPI, Diploma programs have shown the most substantial improvement, increasing from 0.22 in 2020 to 0.36 in 2023, representing a 64% improvement over the four-year period. With the overall GPI at 0.42 in 2023, there remains a significant gap to achieve the SDG milestone target of 0.57 by 2025, requiring continued efforts to address barriers to female participation in TVET (*See Figure 11 above*).

KPI 12: % of Girl's Participation in TVET

The definition of KPI 12 is "The percentage of the corresponding pupils, calculated by dividing total number of girls enrolled in TVET by Total number of students enrolled in TVET." **In 2023, the value of KPI 12: Girl's Participation in TVET = 29.53** (*see Figure 12 below*)

Figure 12: % of Girl's Participation in TVET 2020-23

	2020 (Baseline)	2021	2022	2023
■ Public	20.78	18.91	18.97	20.66
■ Private	30.16	30.52	30.28	32.18
■ All	27.24	27.13	27.12	29.53
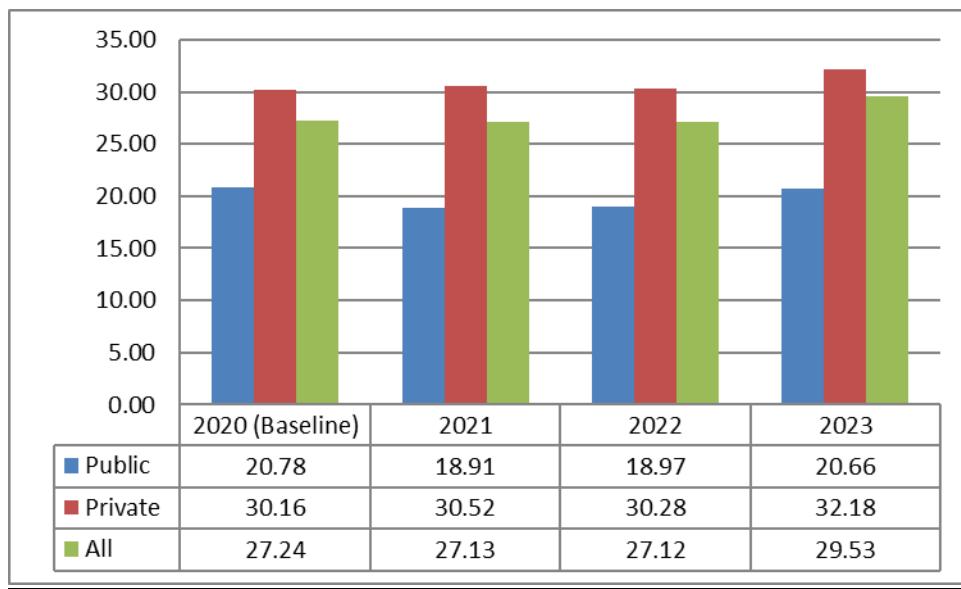
Source: Bangladesh Education Statistics 2024, BANBEIS

The percentage of girls' participation in TVET is a fundamental indicator for measuring female inclusion in technical and vocational education, providing direct insights into gender-based access patterns and the effectiveness of initiatives to promote women's participation in skills development programs. This metric complements the Gender Parity Index by offering an absolute measure of female representation in TVET.

The percentage of girls' participation in TVET has shown a positive trend, increasing from 27.24% in 2020 to 29.53% in 2023. After a slight decline from 27.24% in 2020 to 27.13% in 2021 and 27.12% in 2022, there was a notable jump of 2.41 percentage points to 29.53% in 2023, suggesting accelerated progress in recent efforts to increase female participation. However, with females still constituting less than one-third of the total TVET enrolment, significant gender disparities remain in the technical education landscape.

The analysis by management type reveals a notable disparity, with private institutions demonstrating consistently higher female participation (increasing from 30.16% in 2020 to 32.18% in 2023) compared to public institutions (which fluctuated from 20.78% in 2020 to 20.66% in 2023, with lower rates of 18.91% in 2021 and 18.97% in 2022). This substantial

difference of approximately 11.5 percentage points suggests that private institutions may be more effective at attracting and retaining female students, possibly due to factors such as more diverse course offerings, better geographical accessibility, or institutional environments more conducive to female participation. (See Figure 13)

Figure 13: % of Girl's Participation in TVET by Level 2020-2023

	2020 (Baseline)	2021	2022	2023
■ Training				32.61
■ SSC (Voc)	32.89	32.46	32.54	29.56
■ HSC (Voc)	29.38	28.96	28.86	29.58
■ Diploma	18.23	19.05	18.97	26.66
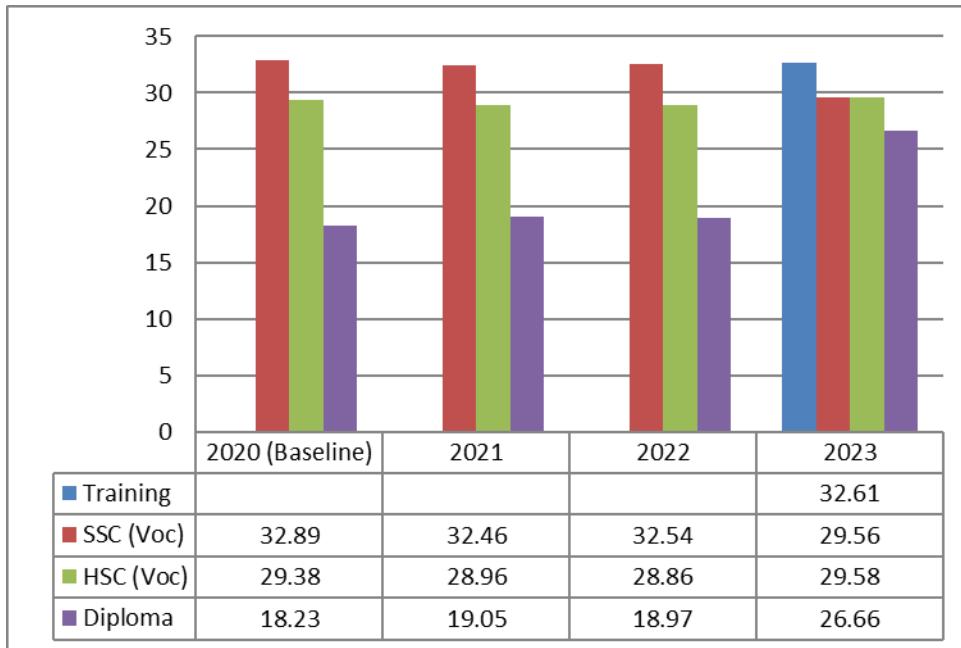
Note: Training include: Basic Course (360 hrs.), Certificate Course and others

Source: Bangladesh Education Statistics 2024, BANBEIS

When examining participation by educational level in 2023, training programs showed the highest female participation (32.61%), followed by HSC (Vocational) at 29.58% and SSC (Vocational) at 29.56%, while Diploma programs had the lowest at 26.66%. This pattern mirrors the trends observed in the Gender Parity Index, with shorter training programs demonstrating greater gender balance. Despite having the lowest percentage, Diploma programs have shown the most substantial improvement, increasing from 18.23% in 2020 to 26.66% in 2023, an 8.43 percentage point or 46.2% increase. This significant progress at the diploma level is encouraging, as it represents improvement in an area that has historically shown the greatest gender disparity. These trends reflect the impact of gender-inclusive policies and initiatives; though substantial work remains to achieve gender parity across all TVET levels (see Figure 13 above).

KPI 13: Proportion of Youth (15–24 year) Enrolled in TVET

The definition of KPI 13 is "the number of students enrolled in TVET regardless of age among the 15–24-year-olds (youth) population". In 2023, the value of KPI 13: Proportion of Youth (15–24 year) Enrolled in TVET=5.04% (see figure 14 below)

Figure 14: Proportion of Youth (15–24 year) Enrolled in TVET 2020-23

	2020 (Baseline)	2021	2022	2023
■ %	3.59	3.24	3.76	5.04
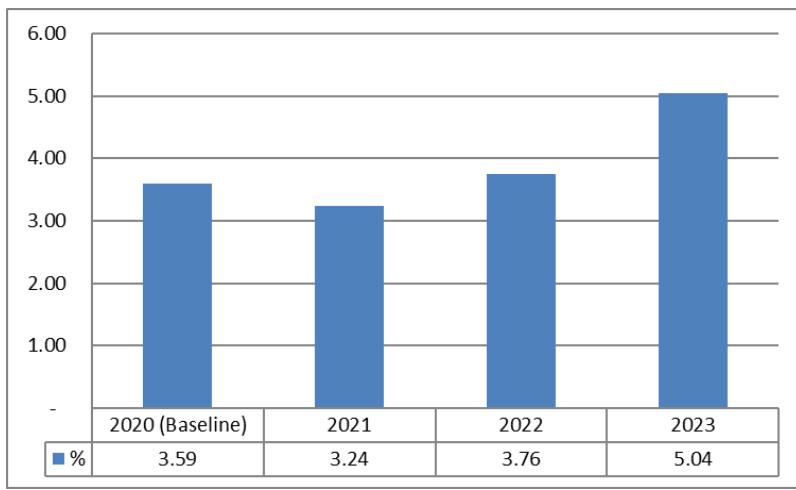
Source: Bangladesh Education Statistics 2024, BANBEIS

This KPI is also a SDG4 indicator with the following milestones. *(See Table 10)*

Table 10: SDG Target on Participation of Youth in Technical Education

	Baseline Data (2015)	Milestone 2020	Milestone 2025	Milestone 2030
4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex: Technical Education	14%	20%	25%	30%

Source: SDG Monitoring Framework, Bangladesh

The Proportion of Youth (15-24 years) Enrolled in TVET has shown significant improvement, increasing from 3.59% in 2020 to 5.04% in 2023. This represents a substantial 40.4% increase in the youth participation rate over the four-year period. The year-by-year pattern shows a decline from 3.59% in 2020 to 3.24% in 2021, followed by recovery to 3.76% in 2022, and then a significant jump to 5.04% in 2023. Despite this progress, the current rate remains well below the SDG milestone targets of 20% for 2020 and 25% for 2025.

The consistent upward trend, particularly the recent acceleration, indicates growing recognition of TVET's importance among youth and improved access to technical education opportunities. The increase aligns with the overall expansion in TVET enrolment observed in

Table **5***,* which shows total student numbers rising from 1,118,334 in 2020 to 1,818,522 in 2023, a 62.6% increase. Several factors may be contributing to this positive trend, including increased awareness of TVET opportunities, expanded institutional capacity, enhanced program relevance, and improved perceptions of technical education. Despite this encouraging progress, the current youth participation rate of 5.04% means that only about

1 in 20 young people aged 15-24 are enrolled in TVET programs, indicating substantial room for further expansion to approach the ambitious SDG targets for 2025 and 2030.

A notable inconsistency exists between the current participation rate (5.04%) and the SDG baseline data from 2015, which reported a 14% participation rate. This substantial discrepancy suggests possible methodological differences in calculation approaches, changes in the definition of TVET participation, or differences in data collection coverage. The divergence may stem from the SDG baseline potentially including a broader range of formal and non-formal technical training programs, whereas the current metrics might focus more narrowly on formal TVET enrolment.

2.2   BTEB Statistics and Analysis

2.2.1 BTEB STATISTICAL SYSTEM OVERVIEW

The Bangladesh Technical Education Board (BTEB) is the central regulatory authority for technical and vocational education in Bangladesh. Established in 1969, BTEB operates under the Ministry of Education and is responsible for:

- Setting curricula and developing learning materials for technical and vocational programs at the secondary (SSC), higher secondary (HSC/Vocational), and diploma levels, including 4-year Diplomas in Engineering, Agriculture, and Medical Technology.
- Granting affiliation to technical and vocational institutions across the country.
- Governing admissions, conducting examinations, and awarding diploma and certificate qualifications.
- Ensuring that technical education aligns with the needs of industries and the evolving job market, thereby supporting national economic development.

BTEB maintains a robust statistical system to monitor and analyse enrolment, pass rates, and academic outcomes across its affiliated institutions. Key features of its statistical system include:

- **Annual Data Collection:** BTEB collects and analyse data on student enrolment, examination performance, and pass rates for SSC (Vocational), HSC (Vocational), and diploma programs and short trade courses. This includes breakdowns by year, gender, and institution.

- **Enrolment Trends:** The board tracks the percentage of students enrolled in technical education at secondary and higher secondary levels. For example, in 2014, BTEB enrolment accounted for 11.01% of secondary and 16.18% of higher secondary students. Projections suggested that BTEB's share could reach over 20% by 2020 if trends continued.

- **Performance Statistics:** Detailed statistics are published annually, showing total examinees, pass rates, fail rates, and the number of students achieving the highest

GPA (GPA 5.00). For instance, in 2024, the SSC (Vocational) pass rate was 78.92%, and the HSC (Vocational) pass rate was 86.38%.

- **Data Sources and Limitations:** Data is compiled from both public and private institutions under

BTEB's statistical system supports policy-making, helps track educational outcomes, and guides improvements in technical and vocational education nationwide. However, the type of data BTEB collected is more limited than BANBEIS, such as information on teachers and institute facilities. Moreover, data is compiled from both public and private institutions under BTEB's jurisdiction, covering formal courses only.

Based on the BTEB enrolment statistics from 2019 to 2023, there's been an overall positive growth trend with the grand total increasing from 1,387,691 students in 2019 to 1,689,905 students in 2023, representing about a 22% increase over this five-year period. Some notable patterns include significant growth in SSC (Vocational) enrolment which increased by 55% from 372,257 to 577,179 students, and Short Course enrolment which grew by 25% despite a dip in 2020-2021 (likely during the pandemic). Conversely, Diploma 4-year programs show a concerning downward trend, declining by 23% from 338,888 to 259,794 students. The introduction of Pre-Vocational programs in 2022 added approximately 40,000 new students to the system by 2023, while HSC (BMT) enrolment has remained relatively stable with some fluctuations. Overall, the data suggests a shift toward shorter vocational programs and away from longer diploma courses. The statistical summary of BTEB is provided in Table 11.

Table 11: Enrolment in major Curriculum under BTEB 2019-2023

	2019	2020	2021	2022	2023
Short Course	272,849	215,790	201,235	309,779	341,511
SSC (Vocational)	372,257	396,555	417,129	531,744	577,179
Dakhil (Vocational)	7,124	8,832	10,130	16,243	18,854
HSC (Vocational)	14,962	14,661	15,589	20,902	24,947
HSC (BMT)	381,611	466,306	410,715	431,364	426,735
Diploma All (4 years)	338,888	361,086	315,468	271,453	259,794
Total	**1,387,691**	**1,463,230**	**1,370,266**	**1,581,485**	**1,649,020**
Pre-Vocational	-	-	-	35,863	40,885
NSM & MATS	-	-	-	-	-
Grand Total	**1,387,691**	**1,463,230**	**1,370,266**	**1,617,348**	**1,689,905**

It is to be noted that there are discrepancies between BTEB and BANBEIS student enrollment data which have shifted over time, moving from BTEB reporting higher numbers during 2019-2022 to lower numbers in 2023. The difference was high in 2022 when BTEB

reported 383,552 more students, but this reversed in 2023 with 128,617 fewer students. Variations are most apparent in Short Courses, SSC (Vocational), and HSC programs, due different approaches to data classification and collection (e.g., annual census vs. administrative data). These patterns indicate the importance of developing more consistent reporting frameworks between the two agencies to better track progress in Bangladesh's technical education system.

These inconsistencies are due to how TVET statistics are collected, calculated, and reported in the TVET sector. To address these challenges and strengthen sector monitoring, TVET would benefit from developing a unified reporting system with standardized methodologies, harmonized definitions, and integrated data collection protocols. Such a system should leverage the strengths of both organizations—BTEB's direct access to examination results and BANBEIS's comprehensive data coverage—while establishing consistent approaches to measuring key performance indicators. A coordinated statistical framework through strengthen collaboration between BANBEIS and BTEB will ensure improved statistical integration and improved system performance monitoring.

2.2.2 TREND ANALYSIS OF TVET ENROLMENT UNDER BTEB

The Bangladesh Technical Education Board (BTEB) has conducted a comprehensive analysis of Technical and Vocational Education and Training (TVET) enrolment trends from 2014-2023. This analysis tracks progress toward the national goal of building a skilled workforce through increased technical education participation.

Methodology and Data Sources

To measure TVET's footprint in Bangladesh's education system, the analysis uses a clear formula:

Enrolment Share under BTEB (%) = (Number of Students Enrolled under BTEB / Number of Students Enrolled under All Boards) × 100

This calculation reveals what percentage of secondary education students are pursuing technical and vocational pathways rather than traditional academic education. The analysis draws data from two authoritative sources:

- **General Education data**: From 9 Boards of Intermediate and Secondary Education (GEB) and Bangladesh Madrasah Education Board (MEB) (Source: Bangladesh Education Statistics, 2014-2023, BANBEIS).
- **TVET education data**: All BTEB-governed programs (Source: Computer cell & NTVQF cell Report, 2014-2023, BTEB).

The report employs tailored counting methodologies for different program types to ensure accurate representation:

- **Short-term courses**: Basic Trade Courses (3-6 months or 36 hours) are counted quarterly (2- 4 times yearly);

- **Competency-Based Training & Assessment (CBT&A)**: Annual registration counts
- **Academic programs (Classes IX-XII)**: Count includes both new registrants and repeating students
- **Diploma programs**: Tracks students across all semesters, including provisions for irregular students

Key Finding: The analysis reveals significant growth in technical education's presence in Bangladesh's educational landscape:

Steady growth in TVET share: Enrolment share increased from 14.58% (2014) to 19.00% (2023), demonstrating consistent upward momentum toward the target of 30% by 2030.

Figure 15: TVET Enrolment Share under BTEB 2014-2023

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Target 2030
Ernolment Share	14.6%	15.1%	15.3%	15.7%	16.1%	17.1%	17.3%	15.8%	17.9%	19.0%	30.0%
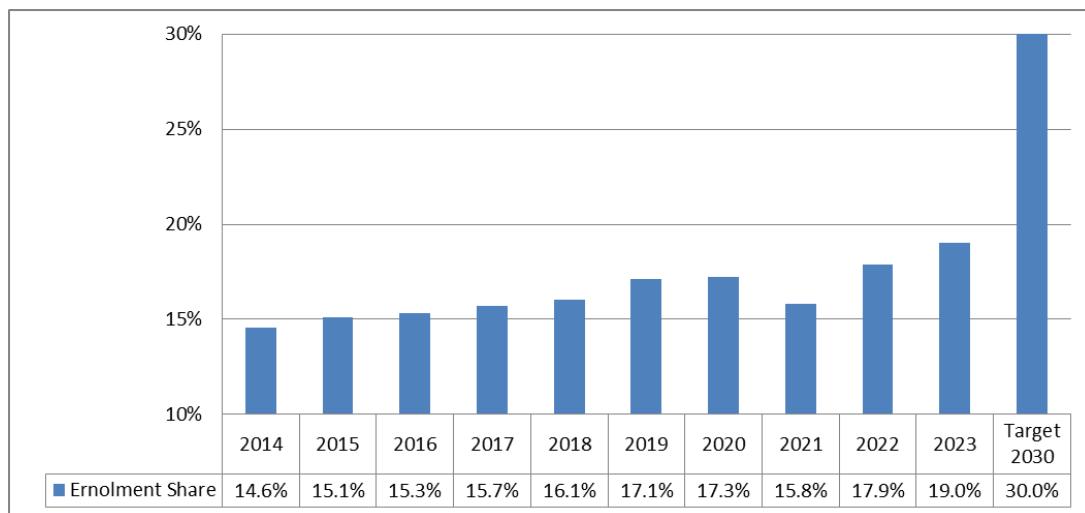
Source: BTEB annual report 2024

Program distribution (2023): The 1,649,020 students enrolled in BTEB programs were distributed across:

- SSC (Vocational): 577,179 (35.0%)
- HSC (Business Management Technology): 426,735 (25.9%)
- Short Courses: 341,511 (20.7%)
- Diploma programs: 259,794 (15.8%)
- HSC (Vocational): 24,947 (1.5%)
- Dakhil (Vocational): 18,854 (1.1%)

Gender distribution:

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- Male: 1,187,798 (72.03%)
- Female: 461,222 (27.97%)

Youth participation rate (ages 15-24):

- Overall: 5.04% of youth population
- Female: 7.30% (notably higher than male rate)
- Male: 4.50%

Using mathematical projection techniques (Lagrange's Extrapolation Formula and Newton's Forward Formula), the analysis forecasts that enrolment could reach approximately 4 million students by 2027 if current trends continue. This trend analysis serves dual purposes: measuring progress in technical education expansion and providing a planning tool for policymakers. The report concludes with recommendations for enhancing TVET enrolment tracking systems and proposes a collaborative research initiative on "Achieving 30% Enrolment by 2030 in TVET in Bangladesh: Challenges and Possibilities."

2.2.3 BTEB EXAMINATION RESULTS

The Bangladesh Technical Education Board (BTEB) is responsible in the administration of examinations for technical and vocational education across Bangladesh. As a state regulatory authority under the TMED, BTEB is responsible for conducting examinations at various levels, including the Secondary School Certificate (SSC) vocational, Higher Secondary Certificate (HSC) vocational, and multiple diploma programs such as engineering, agriculture, and medical technology. The board ensures that examinations are standardized, fair, and aligned with the approved curricula, thereby maintaining the quality and integrity of technical education. BTEB also monitors the examination process, checks educational institutions for compliance, and oversees the evaluation and publication of results

The examination participation trends across BTEB programs reveal distinct patterns of growth and fluctuation from 2018 to 2023. At the Diploma level, the number of examinees showed steady growth from 63,002 in 2018 to a peak of 70,535 in 2022, representing an 11.9% increase over the four-year period. This upward trajectory demonstrates sustained interest in diploma-level technical education.

Higher Secondary Level programs experienced notable changes, with examinees rising from 118,013 in 2018 to 149,398 in 2021—a 26.6% increase. However, this was followed by a decline to 123,214 in 2022, suggesting potential challenges in maintaining enrolment momentum at this level.

The Secondary Level (SSC Vocational and Dakhil Vocational) programs maintained relatively stable participation, with examinees fluctuating between 126,383 and 155,573 from 2019 to 2023. The peak occurred in 2021 with 155,573 examinees, followed by a reduction to 128,023 in both 2022 and 2023.

Basic Trade (360 Hr) programs showed the most volatile pattern, starting with 268,208 examinees in 2019, dropping significantly to 157,247 in 2021, and then recovering to 238,202 by 2023. This fluctuation may reflect varying student and job market demands and program accessibility.

Figure 16: Number of Examinees

	2019	2020	2021	2022	2023
Diploma	61,256	67,739	67,739	70,535	60,573
HSC	124,336	133,746	149,398	123,214	153,982
SSC	126,383	131,905	155,573	128,023	128,023
Basic Trade (360 Hr)	268,208	215,790	157,247	234,378	238,202
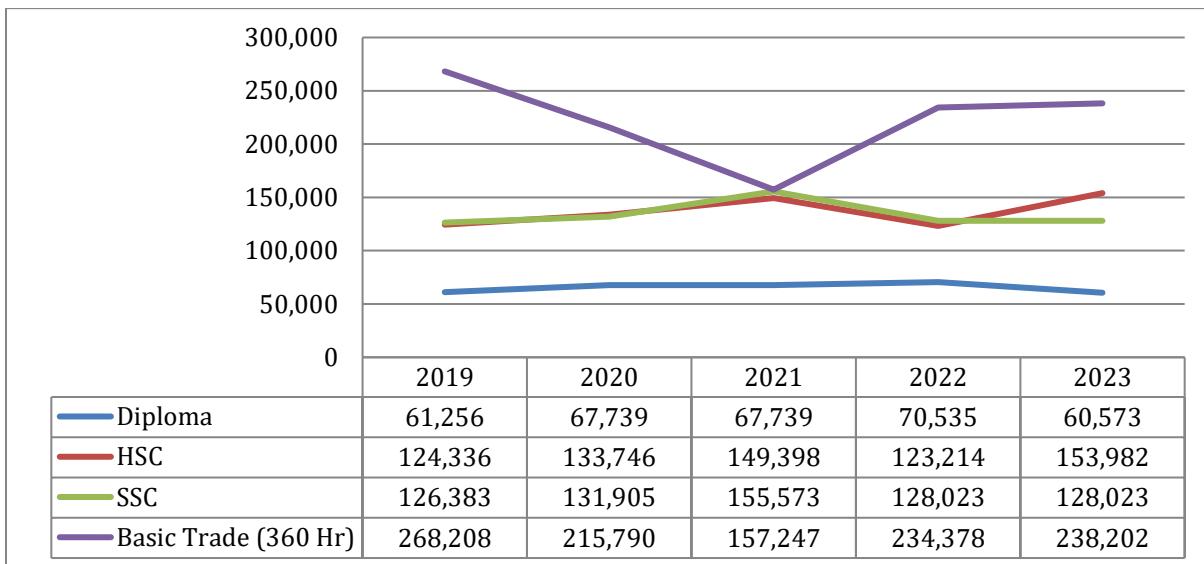
Source: BTEB Annual Report 2023-25
Note:
- *Diploma Level Programs (Including Diploma in Engineering, Textile, Agriculture, Fisheries, Forestry, Livestock, Medical Ultrasound, Medical Technology, and Tourism & Hospitality)*
- *Higher Secondary Level - HSC (Vocational), HSC (BMT) and Diploma in Commerce Programs*
- *Secondary Level - SSC (Vocational) and Dakhil (Vocational) Programs*

The examination participation rates relative to enrolment reveal insights about student progression and program completion across different levels. These ratios indicate how effectively enrolled students are being guided through to examination stages, highlighting potential areas for intervention and support.

At the Diploma level, the participation rate appears to be moderate, suggesting that while enrolment numbers from Table 11 show fluctuations (from 338,888 in 2019 declining to 259,794 in 2023), and a reasonable proportion of enrolled students' progress to examination stages. The declining enrolment trend contrasts with the steady increase in examinees, indicating improved conversion rates.

Higher Secondary HSC Level programs demonstrate varying participation efficiency. Despite enrolment numbers rising from 396,573 in 2019 to 451,682 in 2023, the examination participation peaked in 2021 before declining in 2022, suggesting challenges in maintaining student progression through program completion.

Secondary SSC Level programs show enrolment growth from 379,381 in 2019 to 596,033 in 2023—a substantial 57% increase. However, examination participation remained relatively stable around 128,000-155,000, indicating a declining participation rate relative to the growing enrolment base.

Basic Trade programs present the most concerning trend, with enrolment dropping from 272,849 in 2019 to 201,235 in 2021 before recovering to 341,511 in 2023. The examination participation patterns suggest varying program completion rates that require further investigation.

Figure 17: Examination Participation Rate (%)

	2019	2020	2021	2022	2023
Diploma	18.08	18.76	21.47	25.98	23.32
HSC	31.35	27.81	35.04	27.24	34.09
SSC	33.31	32.54	36.41	23.36	21.48
Basic Trade (360 Hr)	98.30	100.00	78.14	75.66	69.75
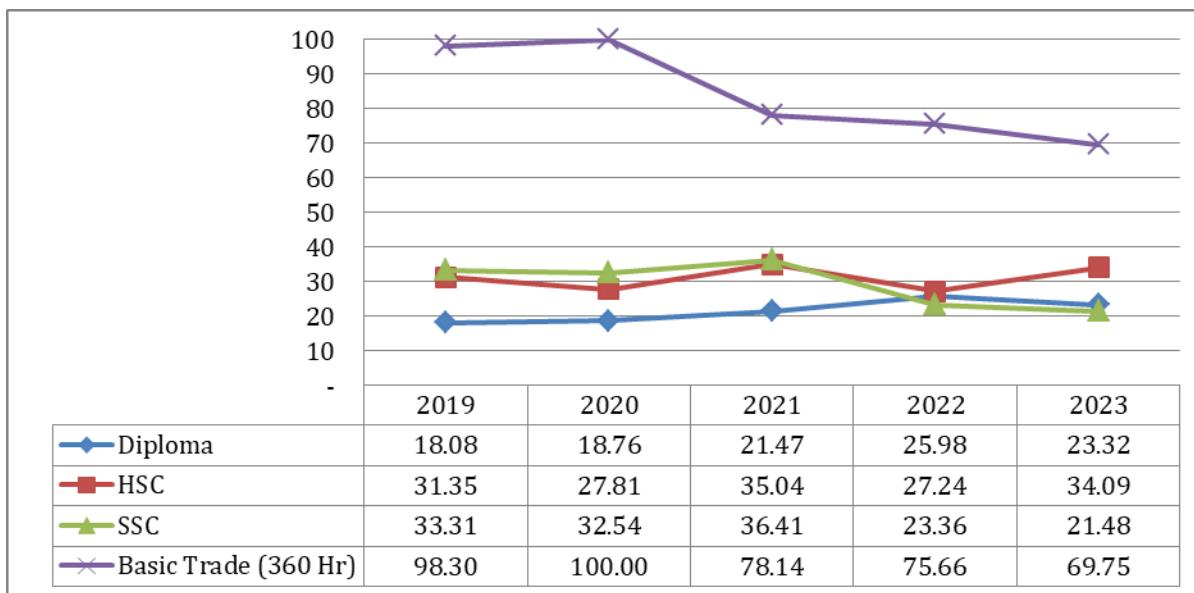
Source: BTEB Annual Report 2023-25

The examination pass rates across BTEB programs demonstrate generally positive trends, with most programs achieving substantial improvements in student outcomes over the analysis period. Diploma level programs showed consistent improvement in pass rates, rising from 76.68% in 2018 to 82.32% in 2022. This 5.64 percentage point increase represents significant progress in educational quality and student support, with over 4 out of 5 students successfully completing their examinations by 2022.

Higher Secondary (HSC) Level programs achieved significant improvement, with pass rates increasing from 76.76% in 2018 to an exceptional 100% in 2020. While this perfect pass rate likely reflects special circumstances (possibly related to COVID-19 assessment modifications), the program maintained strong performance with 90.29% in 2022.

Secondary (SSC) Level programs demonstrated substantial progress, with pass rates improving from 72.24% in 2019 to a peak of 89.21% in 2021—a 16.97 percentage point

increase. Although rates moderated to 82.59% in 2023, this still represents a 10.35 percentage point improvement from the baseline year.

Basic Trade (360 Hr) programs maintained relatively stable pass rates between 72.77% and 80.50% throughout the period, with the highest achievement of 80.50% recorded in 2022. The consistency in these rates, hovering around 75-80%, indicates reliable program delivery and assessment standards.

Figure 18: Exam Pass Rate (%)

	2019	2020	2021	2022	2023
Diploma	79.02	80.05	80.05	82.32	84.26
HSC	85.32	100	92.99	90.29	89.03
SSC	72.24	72.7	89.21	83.4	82.59
Basic Trade (360 Hr)	79.73	72.77	75.12	80.5	78.91
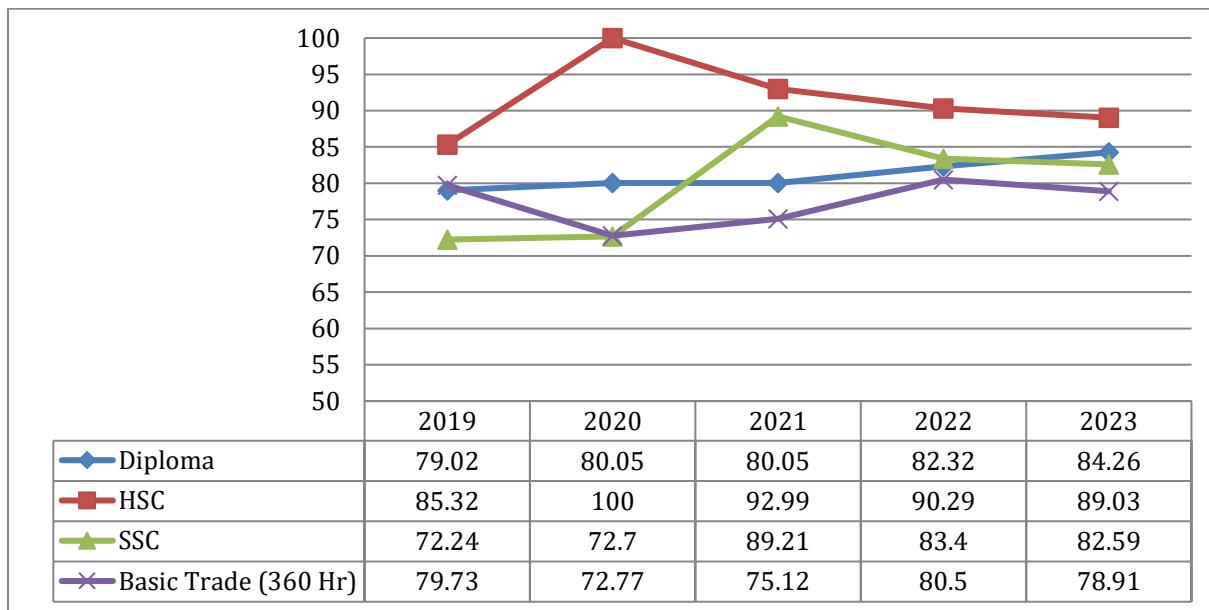
Source: BTEB Annual Report 2023-25

Overall, the pass rate trends indicate positive developments in the technical and vocational education system, with most programs achieving pass rates above 80% by the end of the analysis period. This reflects gradual improvements in educational quality and student support mechanisms within Bangladesh's TVET sector, though continued attention to enrollment-to-examination conversion rates and program accessibility remains important for system-wide enhancement.

While the improving pass rates demonstrate academic progress, it is important to bear in mind that examination success does not automatically translate to employment outcomes. The ultimate measure of TVET effectiveness lies in minimizing the number of graduates who become NEET (Not in Education, Employment, or Training). To bridge this gap, TVET institutes need to strengthen career guidance services and establish comprehensive job counseling programs that help graduates transition effectively from education to employment. Regular tracer studies and research are critical to monitor graduate outcomes and ensure that the positive trends in pass rates contribute meaningfully to reducing youth unemployment and supporting economic development.

CHAPTER 3: MINISTRY LEVEL PERFORMANCE

This Chapter presents the KPI performance of the four participating ministries of ASPR 2024: the Technical and Madrasah Education Division (TMED), Ministry of Agriculture (MoA), Ministry of Expatriates' Welfare and Overseas Employment (Moe WOE), and Ministry of Shipping (MoS). The data are drawn from administrative records and institute survey.

3.1 Technical and Madrasah Education Division (TMED)

3.1.1 TMED/DTE TVET SYSTEM OVERVIEW

The Technical and Madrasah Education Division (TMED) under the Ministry of Education is the primary administrative body overseeing technical and vocational education in Bangladesh. TMED works with the Directorate of Technical Education (DTE) to provide regulatory oversight of the TVET sector. The DTE has initiated 12 development projects focused on increasing enrolment and enhancing quality within the technical education system. A significant expansion is underway with plans to establish 360 new government TVET institutes, including 27 polytechnic institutes, 329 technical schools and colleges, and 4 land survey institutes. This expansion reflects the government's commitment to developing a skilled workforce aligned with industry needs and global market demands.

DTE TVET Institutes Overview: TMED TVET system has seen remarkable growth in enrolment capacity, with diploma course seats increasing from 12,500 to 46,950. The government has established 100 Technical Schools and Colleges (TSCs) providing technical education to 108,000 students. Currently, 26,746 students are enrolled in TSCs from grades 6 to 8, with an additional 20,613 students admitted into grade 9. The ongoing expansion includes 23 new Polytechnic Institutes (providing 36,800 seats), 4 Women's Polytechnic Institutes (offering 6,400 seats), 329 TSCs under construction (accommodating 355,320 students), and 4 Land Survey Institutes (providing 6,400 additional seats).

Budget Allocation and Financial Support: The Government has consistently increased budget allocations for technical education, demonstrating its commitment to the sector. The TMED budget allocation has grown steadily from 5,700 crore taka (1.23% of the national budget) in 2018-19 to 10,602 crore taka (1.39% of the national budget) in 2023-24. Similarly, the DTE budget has shown significant growth, rising from 1,339.89 crore taka in 2016-17 to 3,618.32 crore taka in 2023-24, with an annual increase ranging from 2.91% to 33.78% over the years. This financial commitment reflects the government's focus on expanding infrastructure, improving facilities, upgrading curricula, and enhancing teacher training to meet industry demands.

Development Projects and International Collaboration: The DTE is implementing nine major development projects with a combined budget of approximately 34,405.96 crore taka. Major initiatives include establishing 329 Technical Schools & Colleges at the Upazila

level (20,525.69 crore taka), establishing Polytechnic Institutes in 23 Districts (3,651.37 crore taka), and the Accelerating and Strengthening Skills for Economic Transformation (ASSET) project (4,299.99 crore taka, partially funded by IDA). In addition to government-funded projects, the sector benefits from technical assistance projects supported by international partners. These include the European Union-funded Skills 21 project (204 crore taka), the Promoting Gender Responsive Enterprise Development and TVET Systems (ProGRESS) project (128.61 crore taka), and JICA's Project for the Improvement of Equipment for Technical Education (98 crore taka).

TVET Stipend Program and Inclusivity Initiatives: The TVET Stipend Program plays a crucial role in improving access to technical education for economically disadvantaged students. The program has expanded significantly, with the number of institutes covered increasing from 157 in 2019-20 to 3,865 in 2023-24, and the number of students receiving stipends growing from 114,087 to 774,549 over the same period. The total disbursement has increased from 45.63 crore taka to 213.37 crore taka. All women and people with disabilities (PWDs) receive TVET stipends as part of efforts to close gender and disability gaps in education and skills development. Bangladesh has also raised the female admission quota from 10% to 20% and implemented a 5% admission quota for PWDs. The government is developing female-friendly ecosystems with separate facilities and institutions, along with special infrastructure such as ramps and accessible toilets for students with disabilities.

Digital Initiatives and Teacher Training: The DTE has launched eCampus, an e-learning platform and Learning Management System aimed at modernizing teacher training. This platform provides interactive digital training modules, online resources, and virtual assessments. So far, 500 teachers have participated in various training programs through this platform, improving their competency in digital instruction and innovative teaching methodologies. The Human Capital Development Programme for Bangladesh 2021 (HCDP-21) is developing an E-learning action plan, creating digital content, and implementing an LMS for SSC (Vocational) courses. Additionally, the Technical Teachers for Future (TTF) project is establishing a Blended Teaching and Training System to modernize TVET teacher training and improve diploma in engineering courses.

Between July 2021 and June 2024, 11,072 TVET teachers received local training, while 73 teachers participated in international training programs. Additionally, 4,428 teachers, trainers, and assessors completed Competency-Based Training and Assessment training across levels 1 to 6, and 1,215 educators underwent training in online material development, enhancing their digital teaching capabilities.

Industry Linkages and Future Plans: A key component of the TVET system is the integration of industrial attachment training. SSC (Vocational) students undergo 6 weeks of industrial training after completing their class nine and ten final examinations, while diploma in engineering students participate in 6 months of industrial attachment training after completing their 7th semester. These experiences enhance practical skills, industry exposure, and employability. Sector-based Industry Skills Councils work with TVET institutions to develop industry-specific training programs, and employers collaborate with the Bangladesh Technical Education Board to design competency-based training curricula.

International organizations such as ILO, World Bank, ADB, and UNESCO support TVET reforms through funding and capacity-building initiatives.

Future plans for the TVET sector focus on addressing labor market needs, improving education quality, and ensuring equitable access. Key strategies include implementing blended education, launching an online MPO system for non-government institutes, offering higher education and training for teachers both domestically and internationally, developing teacher-student exchange policies, integrating green practices, enhancing facilities for students with special needs, fully implementing the Bangladesh National Qualification Framework, prioritizing technologies aligned with the 4th Industrial Revolution, expanding Recognition of Prior Learning certification processes, and introducing TVET teacher placements in relevant industries.

3.1.2 STATISTICAL SUMMARY AND KPI PERFORMANCE

TMED/DTE experienced growth between 2021-2023, with different patterns across its two main institutes. Technical Schools and Colleges (TSC) expanded considerably, with institutes growing from 64 to 127 and teachers increasing from 900 to 2,852 (217% growth). TSC student enrollment rose by 4.7% (34,438 to 36,056), with female participation increasing by 31.8% (5,679 to 7,484). Polytechnics maintained stable institutional numbers (49 to 50) while strengthening their teaching capacity, with staff growing from 944 to 3,182. Polytechnic enrollment decreased by 3% (31,631 to 30,695), though female student participation increased by 22.4% (4,491 to 5,498). Overall, TMED's combined institutes grew by 53% (113 to 173), teaching staff increased by 227% (1,844 to 6,034), and while total student numbers remained stable (66,069 to 66,751), female enrollment rose by 27.6% (10,170 to 12,982) while male enrollment decreased by 3.8% (55,899 to 53,769).

Table 12: DTE Statistics Summary 2021-2023

	Year	Institute	Teacher	Student	Female	Male
TSC	2021-22	64	900	34,438	5,679	28,759
	2022-23	107	1,033	35,871	6,580	29,291
	2023-24	127	2,852	36,056	7,484	28,572
Polytechnics	2021-22	49	944	31,631	4,491	27,140
	2022-23	50	1,426	31,943	5,384	26,559
	2023-24	50	3,182	30,695	5,498	25,197
Total	2021-22	113	1,844	66,069	10,170	55,899
	2022-23	157	2,459	67,814	11,964	55,850
	2023-24	173	6,034	66,751	12,982	53,769

A summary of the DTE KPI performance from 2020- 2023 is Table 13 below.

Table 13: DTE KPI Performance 2022-2024

Results Level	Result Areas	No.	SPFM Indicators	2022	2023	2024
Outcomes	Quality & Relevance	KPI 1	Teacher-Student Ratio	86.25	89.35	28.21
		KPI 2	Student per Institution	988	1074	941
		KPI 3	Teacher per institution	16.32	15.66	34.88
		KPI 4	% of Teacher Vacancy	82.06	81.55	53.62
	Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.18	0.21	0.24
		KPI 12	% of Girls Participation in TVET	15.39	17.64	19.45
		KPI 13	Proportion of Youth (15-24 year) Enrolled in TVET (%)			
		KPI 14	% of Students Receive Stipend	52.17	77.74	46.97
Sector Capacity	System Capacity	KPI 15	% of Trained Teachers	55.47	55.42	24.53
		KPI 16	% of Institutes above 90% in APA Score	4.2	5.04	2.3
	Institute Capacity	KPI 17	% of Institutes above 80% of Enrolment/Seat Capacity	42.31	43.72	23.7
		KPI 18	% of TVET Institute with TSR Below 30		26.75	69.36
		KPI 19	Enrolment Rate of Students with Special Needs	0.19	0.53	0.39
		KPI 20	% TVET Institutes with Expenditure Capacity above 80%	72.57	56.06	47.4
		KPI 21	% of institute signed MoU with industry		66.68	74.57
		KPI 22	% of Graduates Provided Employment Support Service through Job Placement Cell		21.15	13.74
	TVET Financing	KPI 23	Allocation for TVET as % of National Budget	0.49	0.45	1.39
		KPI 24	% Annual Increase in DTE Workshop Equipment Budget	83.68	79.05	-11.99

The TMED/DTE performance across key indicators shows a system experiencing substantial changes, with notable developments and on-going challenges across the three main result areas. TMED/DTE's quality and relevance metrics reveal a system undergoing transformation with varied outcomes. The teacher-student ratio of 28.21 in 2024 represents a considerable improvement from 89.35 in 2023, though it still masks variation between Polytechnics and TSCs. The teacher vacancy rate of 53.62% in 2024, while still elevated, shows improvement from the 81.55% recorded in 2023, though DTE notes this remains connected to recent system expansion with over 12,000 new teaching posts created for newly constructed institutions and expanded programs. The percentage of trained teachers dropped to 24.53% in 2024 from 55.42% in 2023, with DTE noting that training needs vary by subject area, with technology teachers receiving more frequent and longer training than non-technical instructors. Institutional performance shows 2.3% of institutes scoring above 90% in APA assessments in 2024, down from 5.04% in 2023, which DTE attributes partly to adaptation challenges with evaluation systems. The analysis emphasizes that improving education quality requires addressing staffing gaps, enhancing teacher training, and strengthening institutional performance systems.
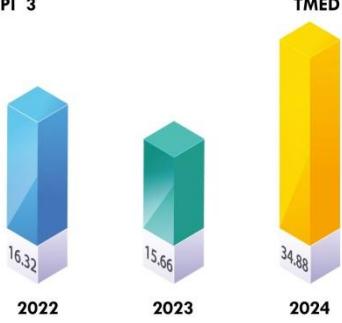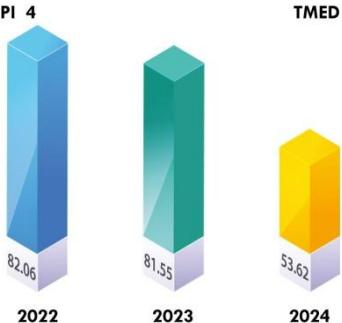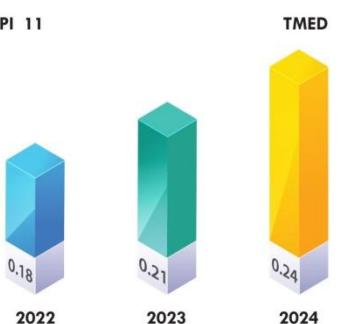
Access and participation indicators highlight ongoing disparities and enrolment patterns. In 2024, 23.7% of institutes fill at least 80% of their approved seats, representing a decline from 43.72% in 2023, with continued lower rates in TSCs compared to Polytechnics. DTE attributes enrollment challenges to several factors, including limited student interest in TVET, misalignment between education quality and market needs, and assessment system limitations. The Gender Parity Index reached 0.24 in 2024, showing steady improvement from 0.21 in 2023 and 0.18 in 2022, though this still indicates gender disparity as values below 1.0 reflect underrepresentation of females in TVET education. Female participation reached 19.45% in 2024, showing continued growth from 17.64% in 2023 and 15.39% in 2022, though gender disparities remain considerable. Students with special needs represent 0.39% of enrollment in 2024, declining from 0.53% in 2023, with DTE noting both data collection challenges and accessibility barriers in physical infrastructure and teaching approaches. Stipend coverage decreased to 46.97% of students in 2024 from 77.74% in 2023, following the previous expansion of social safety net programs. The analysis emphasizes that addressing access challenges requires improving TVET's attractiveness, creating clearer pathways to higher education and employment, and better aligning programs with market needs.

TMED/DTE's institutional capacity and financing indicators show mixed developments alongside operational changes. The percentage of institutes with industry MOUs increased to 74.57% in 2024 from 66.68% in 2023, which DTE characterizes as progress in efforts to bridge education-employment gaps through partnerships that provide students with practical experience and industry exposure. However, employment support through job placement cells reached 13.74% of graduates in 2024, down from 21.15% in 2023, with services including career counselling, job search guidance, and employer connections. Budget utilization shows 47.4% of institutes demonstrating expenditure capacity above 80%

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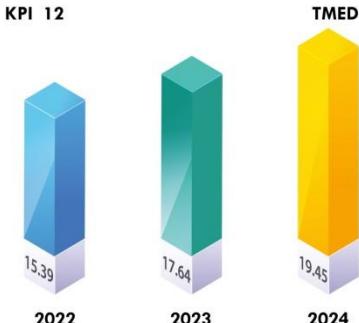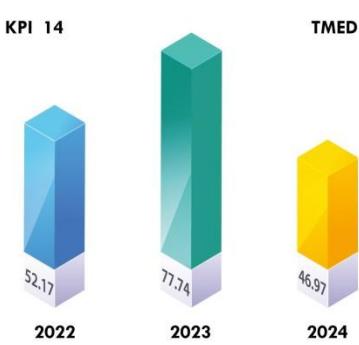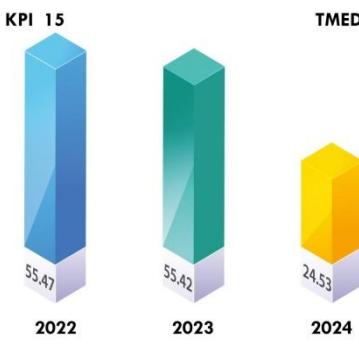
in 2024, declining from 56.06% in 2023, which DTE attributes partly to continued system expansion and procurement expertise limitations. TVET allocation increased to 1.39% of the national budget in 2024, up notably from 0.45% in 2023, representing enhanced government commitment to technical education. Workshop equipment funding showed a decrease of 11.99% in 2024 after years of growth, following the substantial investments made in previous years that DTE emphasizes were crucial for developing industry-relevant skills.
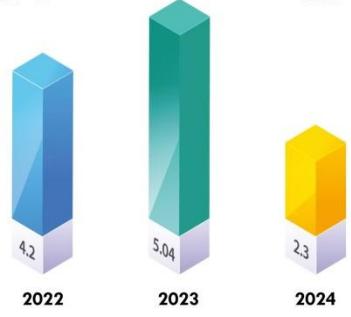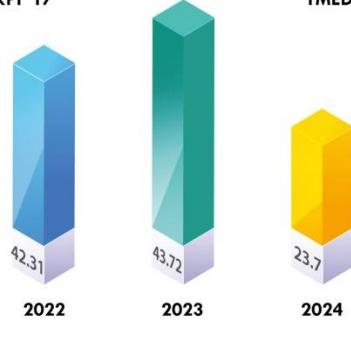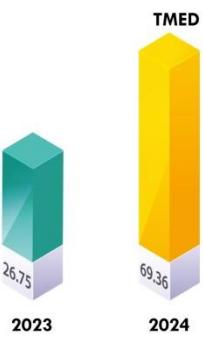
Individual KPI performance from 2020 (baseline year) to 2024 is presented below.
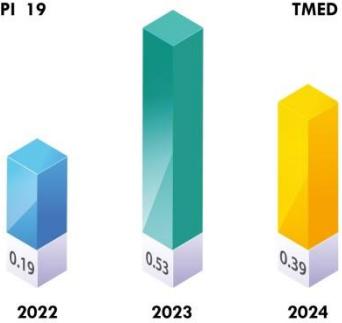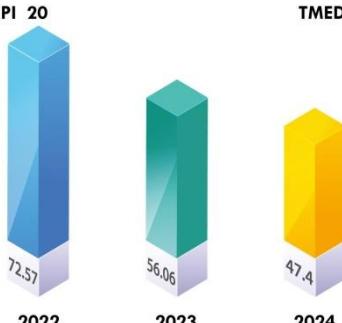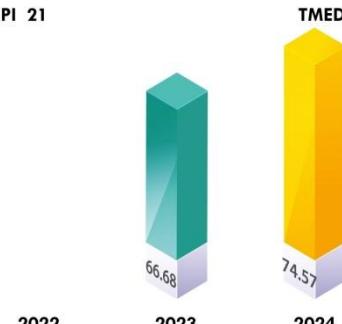
Result Area: Quality & Relevance	
KPI 1: Teacher-Student Ratio	
	In 2023, the value of KPI 1 (Teacher-Student Ratio) is 89.35. The trend shows a dramatic improvement to 28.21 in 2024, representing a substantial reduction that brings the ratio closer to manageable levels from the elevated 2022 level of 86.25. This ratio varies considerably between institution types, with Polytechnic Institutes recording a much higher TSR compared to Technical Schools & Colleges (TSCs). This disparity stems from the 2021 transfer of diploma students from TSC to Polytechnics without corresponding teacher transfers, creating pressure on Polytechnic resources. Addressing these challenges requires strategic planning that recognizes education trends cannot be changed arbitrarily, while ensuring clear pathways for TSC graduates and aligning Polytechnic student intake with market demand.
KPI 2: Student per Institution	
	In 2023, the value of KPI 2 (Students per Institution) is 1074. The pattern shows growth from 988 in 2022, followed by a decrease to 941 in 2024, indicating fluctuation in average institutional enrolment. Several factors contribute to enrolment challenges, including limited student interest in TVET, misalignment between education quality and market needs, non-dynamic assessment systems, and curriculum implementation issues. There's also a noticeable transition from Technical Education to General Education affecting enrolment patterns. Addressing these challenges requires improving academic quality, creating clearer higher education pathways, developing market-aligned programming, and implementing effective TVET awareness campaigns.
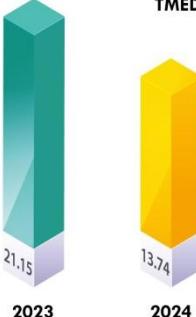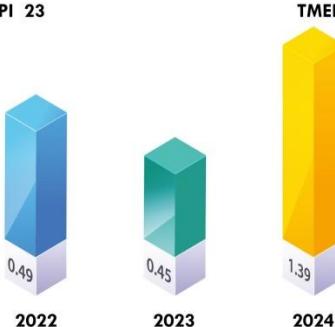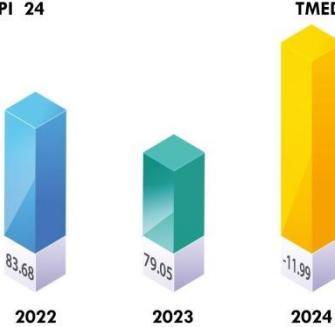
| KPI 3: Teacher per institution	
	In 2023, the value of KPI 3 (Teacher per Institution) is 15.66. The progression shows relatively stable patterns from 2022 (16.32), with substantial expansion to 34.88 in 2024, more than doubling and indicating considerable growth in teaching staff per institution. Despite this improvement, teacher deployment faces on-going challenges. TVET programs continue to face difficulties attracting and retaining qualified instructors, with higher attrition rates compared to other education sectors. Making the TVET teaching profession more attractive remains essential for addressing these staffing challenges. Variations persist between institution types, reflecting different sizes, structures, and educational offerings, which complicate system-wide staffing strategies.
KPI 4: % of Teacher Vacancy	
	In 2023, the value of KPI 4 (Teacher Vacancy) is 81.55%. The development shows improvement to 53.62% in 2024, though the rate remains elevated. The trajectory demonstrates considerable fluctuation, starting at 44.56% in 2020 (baseline), decreasing slightly to 41.64% in 2021, then rising sharply to 82.06% in 2022, maintaining high levels in 2023, before improving in 2024. This high vacancy rate reflects a system in transition, primarily due to the creation of over 12,000 new teaching posts for newly constructed Technical School and College institutes and the expansion of existing TVET programs, including double-shift initiatives. Recruitment efforts continue to fill these positions, with the 2024 improvement suggesting progress as the system stabilizes.
Result Area: Access, Participation and Affordability	
KPI 11: Gender Parity Index in TVET Enrolment	
	In 2023, the value of KPI 11 (Gender Parity Index) is 0.21. The trend demonstrates steady improvement from 0.18 in 2022, continuing to 0.24 in 2024. While this represents consistent progress over three years, the GPI remains well below 1.0, indicating persistent gender disparity with female enrolment significantly lower than male enrolment in TVET programs. (A GPI of 1.0 would indicate gender parity, while values below 1.0 reflect underrepresentation of females.) The gradual but consistent improvement suggests the effectiveness of targeted strategies to increase female participation, including outreach programs, gender-sensitive facilities and curricula, and efforts to challenge stereotypes about technical education and careers. Achieving gender parity remains a critical goal for creating a more inclusive and

	representative TVET system.

KPI 12: % of Girls Participation in TVET	
KPI 12 TMED 15.39 17.64 19.45 2022 2023 2024	**In 2023, the value of KPI 12 (Percentage of Girls' Participation in TVET) is 17.64%**. The trend demonstrates steady improvement from 15.39% in 2022, continuing to 19.45% in 2024. While this represents consistent progress over three years, less than one-fifth of all TVET students are female, indicating persistent gender disparity issues as also reflected in the Gender Parity Index (KPI 11), which remains below parity levels. This gradual but consistent improvement suggests the effectiveness of targeted strategies to increase female participation, including outreach programs, gender-sensitive facilities and curricula, and efforts to challenge stereotypes about technical education and careers.
KPI 14: % of Students Receive Stipend	
KPI 14 TMED 52.17 77.74 46.97 2022 2023 2024	**In 2023, the value of KPI 14 (Percentage of Students Receive Stipend) is 77.74%.** The movement shows substantial growth from 52.17% in 2022, before declining to 46.97% in 2024. Despite the recent decrease, the stipend coverage remains robust compared to earlier years. The 2023 peak represented progress in financial support availability, attributed to the expansion of social safety net programs and the integration of various government-funded student support mechanisms, with budget allocations more than doubling from BDT 1,337.4 million in 2020-21 to BDT 2,825.2 million in 2022-23, demonstrating the government's commitment to making TVET education more affordable and accessible.
Result Area: TVET Sector Capacity	
KPI 15: % of Trained Teachers	
KPI 15 TMED 55.47 55.42 24.53 2022 2023 2024	**In 2023, the value of KPI 15 (Percentage of Trained Teachers) is 55.42%.** The pattern reveals relatively stable levels from 55.47% in 2022, then declining substantially to 24.53% in 2024. The diverse and specialized nature of TVET teacher training requirements impacts this indicator. Training duration varies by trade, with technical teachers (electrical, mechanical, computer) receiving more frequent and longer training than non-technical teachers (English, Social Science, Math). This differentiated approach means non-technical teachers rarely complete the full three months of training during their careers, affecting the overall percentage. Increasing the proportion of trained teachers remains essential for improving education quality in technical and vocational fields.

KPI 16: % of Institutes above 90% in APA Score	
	In 2023, the value of KPI 16 (Percentage of Institutes above 90% in APA Score) is 5.04%. The trajectory shows an increase from 4.2% in 2022, then declining to 2.3% in 2024. This indicates that only a small number of TVET institutes achieve scores in the 90-100% range, reflecting limited outstanding performance in institutional assessments. Implementation challenges include the introduction of APA software in 2021 and limited teacher training in APA application. Moreover, APA targets are not always aligned with institute-level resource allocation. Improvement strategies should focus on curriculum development, teacher training, infrastructure enhancement, industry collaboration, and student support services.
KPI 17: % of Institutes above 80% of Enrolment/Seat Capacity	
	In 2023, the value of KPI 17 (Percentage of Institutes above 80% of Enrolment/Seat Capacity) is 43.72%. The movement shows a considerable decline to 23.7% in 2024. Variation exists between institution types, with Polytechnics typically meeting the threshold at higher rates compared to Technical Schools and Colleges. This indicates many TSCs are operating below their allocated seat capacity. Addressing these enrolment challenges requires comprehensive analysis of capacity utilization across different institutions and regions, developing better student databases, and ensuring sufficient qualified teachers to effectively implement TVET courses.
KPI 18: % of TVET Institute with TSR Below 30	
	In 2023, the value of KPI 18 (Percentage of TVET Institute with TSR Below 30) is 26.75%. This represents a substantial increase to 69.36% in 2024, indicating that more institutes now have teacher-student ratios below 30. Among DTE Polytechnics, some continue to have TSR over 100, with large variations likely due to differences in intake capacity. Addressing these challenges requires streamlining recruitment processes, enhancing teacher training and professional development, strengthening retention strategies, and addressing policy and administrative bottlenecks to improve staffing distribution and reduce extreme teacher-student ratios.

KPI 19: Enrolment Rate of Students with Special Needs	
	In 2023, the value of KPI 19 (Enrolment Rate of Students with Special Needs) is 0.53%. The trend shows an increase from 0.19% in 2022, followed by a decrease to 0.39% in 2024. This low participation rate is compounded by data collection challenges, as no proper system exists for collecting information about physically challenged students across DTE, BTEB, or BANBEIS. Improving accessibility requires revising BTEB admission forms to capture relevant data during admission/registration and enhancing the DTE MIS system to properly track students with special needs.
KPI 20: % TVET Institutes with Expenditure Capacity above 80%	
	In 2023, the value of KPI 20 (Percentage of TVET Institutes with Expenditure Capacity above 80%) is 56.06%. The pattern shows continued decline from 72.57% in 2022 to 47.4% in 2024, following earlier fluctuation from 74.34% in 2020. This downward trend is primarily attributed to system expansion through the opening of new TVET institutes. Specific challenges include lack of procurement expertise at the institute level, leading to under-spending. Properly staffing the DTE procurement cell would provide better support and guidance to institutes and improve budget utilization rates.
KPI 21: % of institute signed MoU with industry	
	In 2023, the value of KPI 21 (Percentage of Institute Signed MoU with Industry) is 66.68%. This represents continued growth to 74.57% in 2024, indicating on-going progress in bridging the gap between education and industry needs. These partnerships provide institutes with industry insights and opportunities for research projects and practical training programs aligned with current market demands. Students benefit through hands-on experience, internships, and apprenticeships, enhancing their employability prospects. The increasing percentage suggests sustained progress in strengthening industry-academia linkages across the TVET system.

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KPI 22: % of Graduates Provided Employment Support Service through Job Placement Cell	
	In 2023, the value of KPI 22 (Percentage of Graduates Provided Employment Support Service) is 21.15%. This represents a decrease to 13.74% in 2024, indicating reduced coverage of employment support services for graduates. These services include career counselling, job search guidance, resume building, interview preparation, and connections with potential employers. To maximize effectiveness, TVET institutes need to establish strong partnerships with industries, stay updated on labour market demands, and tailor their programs to meet industry needs. Collaboration with alumni networks, industry associations, and government agencies can broaden job placement opportunities for graduates.
KPI 23: Allocation for TVET as % of National Budget	
	In 2023, the value of KPI 23 (Allocation for TVET as Percentage of National Budget) is 0.45%. The progression shows a notable increase to 1.39% in 2024, representing enhanced government commitment to technical education. Earlier patterns showed an increase from 0.49% in 2022 before the substantial jump in 2024. In absolute terms, TVET funding grew substantially from 2018-19 to 2022-23, outpacing the growth in the overall national budget during that period. The 2024 increase indicates strengthened government commitment toward TVET development.
KPI 24: % Annual Increase in DTE Workshop Equipment Budget	
	In 2023, the value of KPI 24 (Percentage Annual Increase in DTE Workshop Equipment Budget) is 79.05%. The development shows a shift to negative growth of -11.99% in 2024 after years of positive increases, including 83.68% in 2022. This decline follows substantial investments in previous years that considerably increased the actual budget volume, with FY 2022-23 alone adding BDT 7,000 LAC. These earlier investments were crucial for delivering high-quality technical education by providing up-to-date equipment aligned with industry demands and fourth industrial revolution requirements. To maximize benefits from existing investments, these should be complemented by appropriate maintenance and upgrade strategies, ensuring effective use of equipment in the teaching-learning process.

TMED/DTE's TVET system shows a mixed pattern of development with both progress and challenges evident across different areas. The considerable improvement in teacher-student ratios, continued growth in female participation, increased industry partnerships, and enhanced budget allocation indicate positive momentum in key areas. However, challenges

remain in areas such as institute capacity utilization, employment support services, and maintaining consistent stipend coverage.

As DTE's analysis emphasizes, addressing current challenges requires a comprehensive approach: making TVET more attractive by improving education quality and employment outcomes; creating clearer pathways to higher education; aligning programs more closely with market needs; continuing teacher recruitment while enhancing training programs; and developing institutional capacity for effective program delivery and resource management. The system's expansion continues to create both opportunities and operational challenges that require sustained attention. The substantial increase in budget allocation provides a foundation for addressing many of the identified challenges, though effective implementation and resource utilization remain critical factors for success. By focusing on these priorities while building on existing strengths, DTE can work toward a more effective, accessible, and relevant technical education system that better serves students, employers, and Bangladesh's broader development goals.

3.2 Ministry of Agriculture

3.2.1 DAE TVET System Overview

The introduction of the **four-year Diploma-in-Agriculture** marked a significant shift in agricultural education in Bangladesh. Below concise overview of the history of the program:

- **1989-90 – Distance Learning Makeup Course**: A distance learning course was introduced specifically for the officers of the Department of Agricultural Extension (DAE) at 4 Agricultural Training Institutes (ATIs) located in Gaibandha, Sherpur, Rahmatpur, and Begumganj. This initiative aimed to provide professional development for existing agricultural officers who needed to improve their knowledge and skills through a flexible learning method.

- **1990s – Introduction of Regular 3-Year Diploma Course:** Alongside the distance learning option, a 3-year regular Agriculture Diploma course was initiated to equip students with the necessary skills for the agricultural sector. The course aimed to address the shortage of skilled manpower in agriculture, an essential sector for Bangladesh's economy.

- **1995 – Approval of Private Agricultural Diploma Institutions:** In 1995, the government approved the establishment of private agricultural diploma institutions, expanding the reach and availability of agricultural education. This helped diversify the educational options available to students across the country.

- **2001-2002 – Transition to a 4-Year Course:** Starting from the 2001-2002 academic year, the duration of the regular Agriculture Diploma course was increased to 4 years. This decision was made in response to the growing complexity of agricultural practices and the need for more in-depth training to prepare students for the evolving agricultural landscape.

Present status: The agricultural education sector encompasses a total of 182 institutions, with 18 government institutions and 164 private institutions (of which 62 operate under Monthly Payment Order). In terms of seating capacity, government institutions provide 3,900 seats, while private institutions offer a significantly larger 100,100 seats, contributing to a total of 140,000 seats nationwide. The predominance of private institutions, which make up approximately 90% of all agricultural educational establishments, and their provision of over 95% of all available seats, clearly demonstrates the growing demand for agricultural education and training across the country. This distribution reflects the capacity of the agricultural diploma program to reach a broad population of students, though there may still be challenges in managing quality education given the large number of seats, especially in private institutions. The list of the public Agriculture Training Institute (ATI) and their key statistics are shown in Table 31 below).

1. ATI Sherebangla Nagar, Dhaka
2. ATI Shemultali, Gazipur

3. ATI Sherpur
4. ATI Ishwardi, Pabna
5. ATI Tajhat, Rangpur
6. ATI Gaibandha
7. ATI Faridpur
8. ATI Zenaidha
9. ATI Doulatpur, Khulna
10. ATI Barishal
11. ATI Homna, Cumilla
12. ATI Begumganj, Noakhali
13. ATI Hathazari, Chattagram
14. ATI Khadimnagar, Sylhet
15. ATI Arihazar, Narayanganj
16. ATI Shaturia, Manikganj
17. ATI Bancharampur, Brahmanari
18. ATI Rangamati

Opportunities of the graduate: Agricultural Diploma graduates have a broad range of career opportunities across various sectors in Bangladesh. Below is a detailed list of the **main job fields** for these graduates:

- Department of Agricultural Extension (DAE): Agricultural Diploma graduates can work as extension officers or field officers, helping farmers adopt better agricultural practices, improve productivity, and promote sustainable farming methods.

- Bangladesh Agricultural Development Corporation (BADC): Graduates may work in this organization, which focuses on agricultural development, including irrigation, fertilizer supply, and other critical services for farmers.

- Government Secondary Schools: Graduates can teach agricultural subjects at the secondary school level, helping to inspire the next generation of agricultural professionals.

- Private Secondary Schools: Many private institutions also offer agricultural education, providing opportunities for graduates to work as instructors or administrators.

- Secondary Level Madrasas: Agricultural Diploma holders can teach agricultural science in madrasas, combining religious and technical education to promote agricultural knowledge.

- Bangladesh Agricultural Research Institute (BARI): Graduates can work in agricultural research, developing new farming techniques, high-yield crop varieties, or sustainable agricultural practices.

- Bangladesh Rice Research Institute (BRRI): Focused on improving paddy (rice) production, graduates can be involved in research related to rice cultivation, pest management, and enhancing yields.

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- Bangladesh Jute Research Institute (BJRI): The jute sector plays a vital role in Bangladesh's economy. Agricultural Diploma holders can work in research, exploring ways to improve jute farming and processing.

- Bangladesh Sugarcane Research Institute (BSRI): Graduates may contribute to research in sugarcane farming, exploring ways to improve crop yield and quality, and enhance sugar production.

- Cotton Development Board (CDB): Graduates can work on the development of cotton farming, from research to field implementation, supporting cotton farmers in increasing productivity and quality.

- Sericulture Development Board: Sericulture involves the production of silk through the cultivation of silkworms. Graduates can help support the silk industry by working with farmers and research institutions.

- Seed Production Companies: Graduates may work in the production and marketing of high-quality seeds, improving crop yields and varieties through research, field testing, and sales.

- Pesticide Companies: Agricultural Diploma holders can work with pesticide companies to develop, promote, and sell agricultural chemicals that protect crops from pests and diseases.

- Agro-Based Farms: Graduates can be involved in farm management, crop production, livestock farming, and implementing modern farming practices to enhance productivity and sustainability.

- Food Processing Companies: With a focus on agricultural products, food processing companies provide opportunities for graduates to work in processing, packaging, and distributing agricultural produce.

- NGOs: Many NGOs focus on improving agricultural practices and food security in rural areas. Graduates can work in agricultural development programs, helping farmer's access resources, education, and financial support.

3.2.2 STATISTICAL SUMMARY AND KPI PERFORMANCE

The Agriculture Training Institute (ATI) data presents statistics for 18 government institutions from 2020-2023, which represent only a fraction of the total 182 agricultural training centers in the country (18 public and 164 private institutions). MoA's public institutes offer only Diploma level program, no HSC or SSC (vocation). Within these public institutes, there was a modest 5.7% increase in teaching staff (193 to 204). Total student enrolment in public agricultural institutes grew steadily by 21.7% over this period (from 9,372 to 11,410), demonstrating sustained demand for government-provided agricultural education. Both male and female enrolment increased proportionally, with male students rising by 18% (6,657 to 7,852) and female students by 26.4% (2,815 to 3,558), indicating improved gender inclusivity while maintaining male majority enrolment. The gender ratio showed subtle improvement from 70:30 (male) in 2020 to 69:31 in 2023. The consistent year-over-year growth in both enrolment and teaching capacity suggests a stable, gradually expanding public agricultural education sector with incremental progress in attracting female students, though significant gender disparities persist with males still comprising over two-thirds of the student population.

Table 14: Agriculture Training Institute (ATI) Statistics Summary 2020-2023

	No. Institute	No. Teachers	Total Enrolment	Male Students	Female Students
2020	18	193	9,372	6,657	2,815
2021	18	191	10,129	6,893	3,236
2022	18	198	10,576	7,025	3,216
2023	18	204	11,410	7,852	3,558

Source: Ministry of Agriculture

A summary of the Ministry of Agriculture KPI performance from 2020- 2023 is Table 16 below.

Table 15: MoA KPI Performance 2020-2023
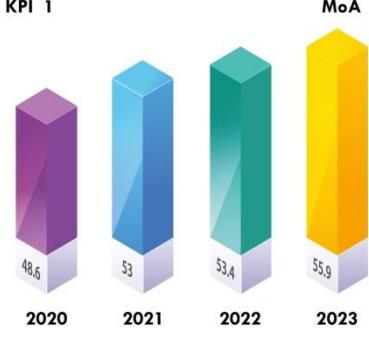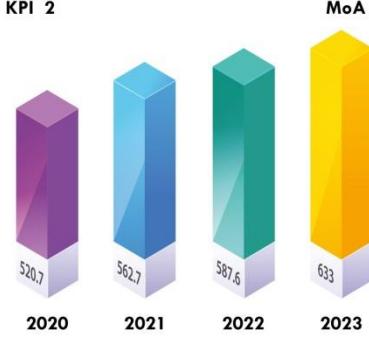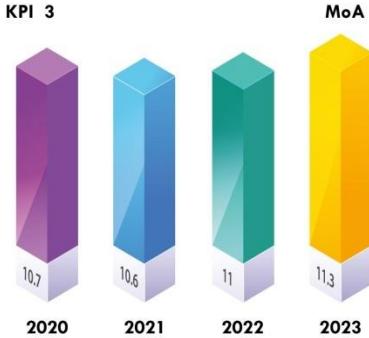
Result Level	Result Areas	No.	SPFM Indicators	2020 (Baseline)	2021	2022	2023
Outcomes	Quality & Relevance	KPI 1	Teacher-Student Ratio	48.6	53	53.4	55.9
		KPI 2	Student per Institution	520.67	562.72	587.56	633
		KPI 3	Teacher per institution	10.72	10.61	11	11.33
		KPI 4	% of Teacher Vacancy	34.38	36.81	34.38	32.99
		KPI 5	Completion Rate at Diploma Level (%)	98.3	99.49	99.73	97.96
		KPI 8	Dropout Rate at Diploma Level (%)	1.7	0.48	0.27	2.06
	Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.42	0.47	0.46	0.45
		KPI 12	% of Girls Participation in TVET	30.04	31.95	30.41	31.18
		KPI 13	Proportion of Youth (15-24 year) Enrolled in TVET (%)	0.00021	0.00022	0.00023	0.00024
		KPI 14	% of Students Receive Stipend	79	80.75	82.59	79.68
Sector Capacity	System Capacity	KPI 15	% of Trained Teachers	100	100	100	100
		KPI 16	% of Institutes above 90% in APA Score	91.28	90.94	92.78	93.44
	Institute Capacity	KPI 17	% of Institutes above 80% of Enrolment/Seat Capacity	73.72	74.87	75.77	76.56
		KPI 19	Enrolment Rate of Students with Special Needs	0.209	0.274	0.406	0.502
		KPI 20	% TVET Institutes with Expenditure Capacity above 80%	100	100	100	100
	TVET Financing	KPI 23	Allocation for TVET as % of National Budget	0.0102	0.00106	0.0093	0.0075
		KPI 24	% Annual Increase in DTE Workshop Equipment Budget	0	0	0	0
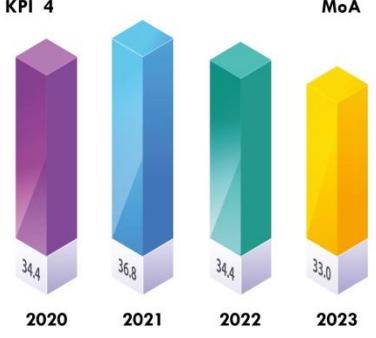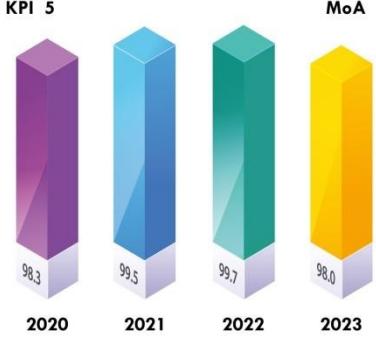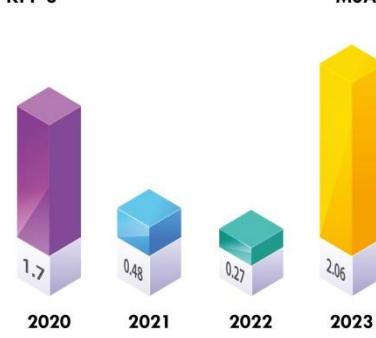
The Ministry of Agriculture's TVET performance across key indicators reveals mixed results with some encouraging trends and persistent challenges across the three main result areas. The quality and relevance metrics show both strengths and areas for improvement. Completion rates at the diploma level have remained impressively stable and high (97.96% in 2023), while dropout rates have been consistently low despite some fluctuations. The teacher-student ratio has been increasing steadily, reaching 55.9 in 2023, with the most substantial jump occurring between 2020 and 2021. While the number of students per institution has grown to 633 in 2023, teacher numbers have not kept pace, with only moderate growth in teachers per institution to 11.33 in 2023. Teacher vacancy remains a significant concern at 32.99% in 2023, though showing slight improvement from earlier years. As MoA's analysis notes, the focus of teacher training has shifted to agricultural technology rather than teaching methods, which "suggests a policy shift, possibly prioritizing subject-specific expertise over general pedagogy."
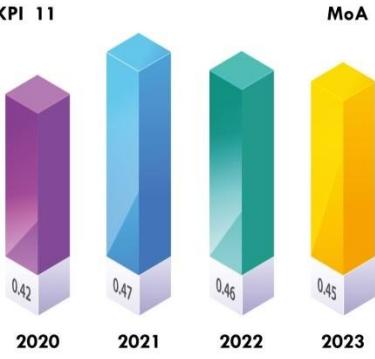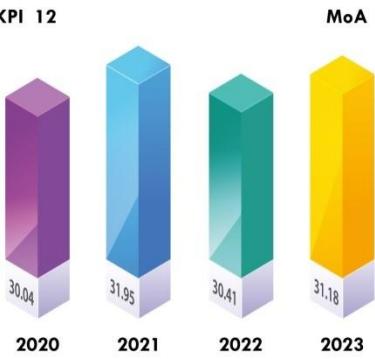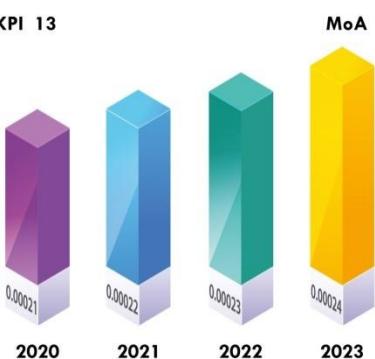
Access and participation indicators reveal gradual improvements with persistent gender disparities. The Gender Parity Index reached 0.45 in 2023, indicating that female participation, while improving, remains significantly below parity. Girls' participation has stabilized around 31.18% in 2023, meaning approximately one-third of all students are female. The proportion of youth enrolled in TVET programs remains extremely small at 0.00024% in 2023, suggesting significant room for expanding coverage among the youth population. Encouragingly, the percentage of students receiving stipends has remained consistently high at 79.68% in 2023, with MoA's analysis noting "a consistent upward trend, suggesting that more students are receiving financial aid over the years." The enrolment rate of students with special needs has more than doubled to 0.502% in 2023, though MoA's analysis reveals fluctuations with peaks and subsequent declines.
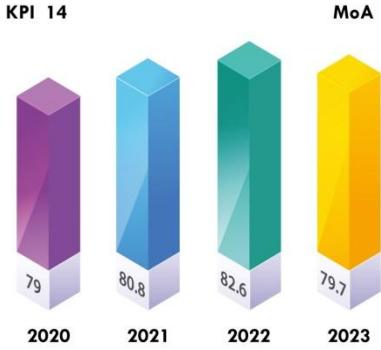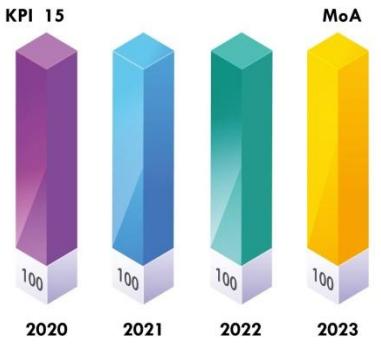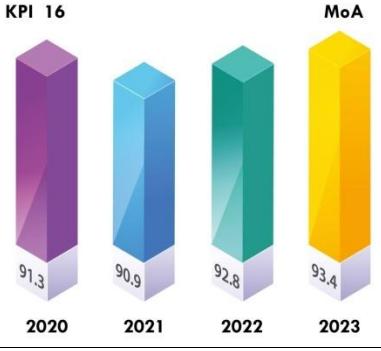
Institutional capacity indicators show strong performance despite financial constraints. The percentage of institutes achieving above 90% in APA scores has improved to 93.44% in 2023, indicating effective institutional management. Similarly, the percentage of institutes with over 80% enrolment capacity has increased to 76.56% in 2023, suggesting growing demand for agricultural education. All institutions have consistently demonstrated strong financial management, with 100% of TVET institutes maintaining expenditure capacity above 80%. However, MoA's analysis reveals concerning financial trends, with TVET allocation as a percentage of the national budget declining to 0.0075% in 2023, representing a downward trajectory that "might indicate a shifting priority in the national budget." Furthermore, there has been zero growth in workshop equipment budget throughout the period, creating a significant gap between allocated resources and actual requirements.
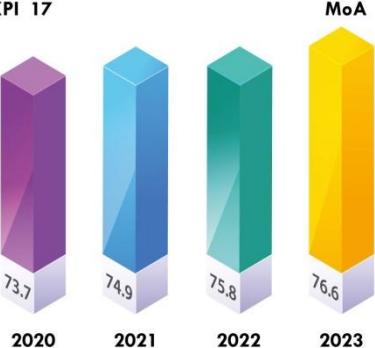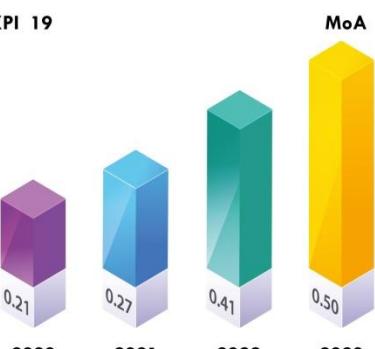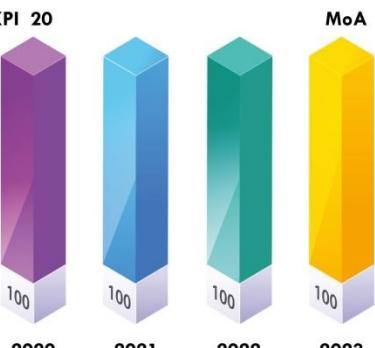
A review of individual KPI performance over 2020 (baseline year) to 2023 is presented below.
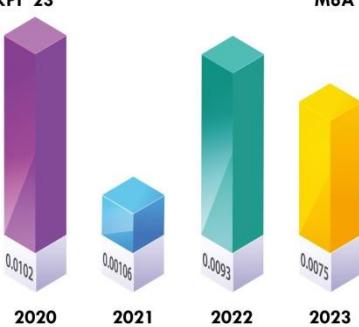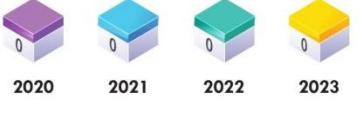
| Result Area: Quality & Relevance	
KPI 1: Teacher-Student Ratio	
	In 2023, the value of KPI 1 (Teacher-Student Ratio) is 55.9. The ratio has steadily increased from 48.6 in 2020 (baseline) to 55.9 in 2023, representing a 15% increase over the four-year period. This consistent upward trend indicates a growing number of students being served by each teacher in MoA's TVET institutes. MoA's analysis observes that the most substantial jump occurred between 2020 and 2021, followed by more gradual increments in subsequent years. This steady increase suggests changing dynamics in the classroom environment, potentially affecting instructional approaches and student-teacher interactions as educators manage larger groups of students.
KPI 2: Student per Institution	
	In 2023, the value of KPI 2 (Students per Institution) is 633. Student numbers have consistently increased from 520.67 in 2020 to 633 in 2023, showing a substantial 21.6% growth over four years, though the growth has not been linear. MoA's analysis highlights a noticeable fluctuation pattern, with a significant increase in 2021, followed by a drop in 2022, before rising again in 2023 and continuing upward in 2024. Despite these year-to-year variations, the overall trajectory shows institutions accommodating larger student populations, suggesting increasing demand for agricultural education and potentially creating pressure on institutional resources and facilities.
KPI 3: Teacher per institution	
	In 2023, the value of KPI 3 (Teacher per Institution) is 11.33. This metric has shown modest growth from 10.72 in 2020 to 11.33 in 2023, with some fluctuation including a dip to 10.61 in 2021.This modest 5.7% increase since 2020 contrasts with the more substantial growth in student enrolment over the same period. MoA's analysis points to a fluctuating pattern, with an initial decrease from 2020 to 2021, followed by gradual recovery in subsequent years, culminating in a more significant increase projected for 2024. This slower growth in teaching staff compared to student population raises questions about instructional capacity and potential workload challenges for existing teachers.

| KPI 4: % of Teacher Vacancy	
KPI 4 MoA 34.4 36.8 34.4 33.0 2020 2021 2022 2023	**In 2023, the value of KPI 4 (Teacher Vacancy) is 32.99%.**The vacancy rate has gradually improved from 34.38% in 2020 to 32.99% in 2023, with a temporary increase to 36.81% in 2021. While this represents a slight improvement from 2020, it still indicates that roughly one-third of all approved teaching positions remain unfilled. MoA's analysis reveals no consistent trend in vacancy rates, with fluctuations throughout the period. More concerning is the February 2025 report showing 58% vacancy (169 vacant positions out of 288 total posts), suggesting a significant deterioration in staffing levels that could seriously impact educational delivery and quality.
KPI 5: Completion Rate at Diploma Level (%)	
KPI 5 MoA 98.3 99.5 99.7 98.0 2020 2021 2022 2023	**In 2023, the value of KPI 5 (Completion Rate at Diploma Level) is 97.96%.**This KPI has remained consistently high throughout the period, ranging from 98.3% in 2020 to a peak of 99.73% in 2022. This impressive figure is part of a consistently high performance trend throughout the four-year period. MoA's analysis characterizes the completion rate as "relatively stable" around the 90% mark with minor fluctuations, followed by a slight increase in 2024. This consistently high completion rate suggests effective student support systems and appropriate curriculum design that enables most students to successfully progress through their diploma programs despite challenges in other areas of the system.
KPI 8: Dropout Rate at Diploma Level (%)	
KPI 8 MoA 1.7 0.48 0.27 2.06 2020 2021 2022 2023	**In 2023, the value of KPI 8 (Dropout Rate at Diploma Level) is 2.06%.**The rate improved significantly from 1.7% in 2020 to a low of 0.27% in 2022 before increasing to 2.06% in 2023, though the overall rates remain relatively low. MoA's analysis notes year-to-year fluctuations without establishing a long-term trend, observing that the dropout rate peaked in 2023 before slightly decreasing in 2024. These generally low dropout figures complement the high completion rates and suggest that once students enroll in agricultural diploma programs, most remain committed to finishing their studies.

| Result Area: Access, Participation and Affordability	
KPI 11: Gender Parity Index in TVET Enrolment	
	In 2023, the value of KPI 11 (Gender Parity Index in TVET Enrolment) is 0.45. This indicator has improved from 0.42 in 2020 to 0.45 in 2023, with a peak of 0.47 in 2021. This indicates some progress toward gender balance since 2020, though female enrolment remains significantly below male enrolment. MoA's analysis shows considerable fluctuation in the GPI, reaching its highest point of 0.51 in 2022 before declining in 2023 and recovering slightly in 2024. This uneven pattern suggests that gains in gender parity may not be stable, pointing to possible inconsistencies in initiatives aimed at increasing female participation in agricultural education.
KPI 12: % of Girls Participation in TVET	
	In 2023, the value of KPI 12 (Percentage of Girls' Participation in TVET) is 31.18%. Female participation has fluctuated over the period, from 30.04% in 2020 to a high of 31.95% in 2021 before settling at 31.18% in 2023. This represents a slight improvement over the 2020 level, indicating that approximately one-third of all TVET students in MoA institutions are female. MoA's analysis describes a fluctuating pattern with the highest participation in 2020, followed by a decline to its lowest point in 2022, before increasing again in 2023 and slightly declining in 2024. This inconsistent pattern mirrors the fluctuations seen in the Gender Parity Index, suggesting challenges in sustaining momentum in female participation initiatives.
KPI 13: Proportion of Youth (15-24 year) Enrolled in TVET (%)	
	In 2023, the value of KPI 13 (Proportion of Youth Enrolled in TVET) is 0.00024%. Despite showing slight growth since 2020, this extremely small percentage indicates that agricultural TVET programs are reaching only a tiny fraction of the potential youth population. MoA's analysis provides context with 2024 data showing just 10,731 youth enrolled out of a population of over 53.8 million young people. This minuscule coverage suggests significant untapped potential for expanding agricultural education among youth, who represent the future of the agricultural sector.

| KPI 14: % of Students Receive Stipend	
	In 2023, the value of KPI 14 (Percentage of Students Receiving Stipend) is 79.68%. This metric has remained relatively stable, ranging from 79% in 2020 to a peak of 82.59% in 2022. This consistently high level of stipend coverage throughout the period indicates strong financial support for students in agricultural education. MoA's analysis identifies a pattern of gradual increase from 2021 to 2024 after an initial slight dip, culminating in the highest coverage in 2024. This positive trend suggests improving financial aid administration and recognition of the importance of economic support in enabling student access and retention in agricultural training programs
Result Area: TVET Sector Capacity	
KPI 15: % of Trained Teachers	
	In 2023, the value of KPI 15 (Percentage of Trained Teachers) is 100%. This perfect record has been maintained throughout the entire period, indicating universal training coverage for all teachers. However, MoA's analysis reveals an important qualitative shift: training now focuses exclusively on agricultural technology rather than teaching methods. Their analysis warns this policy shift could create "a gap in effective teaching practices, potentially lowering overall educational quality" and recommends "a balanced approach, integrating both teaching methods and subject-specific training" for sustainable educational improvement
KPI 16: % of Institutes above 90% in APA Score	
	In 2023, the value of KPI 16 (Percentage of Institutes above 90% in APA Score) is 93.44%. This high figure represents an improvement from the already impressive 91.28% recorded in 2020. MoA's analysis identifies a generally increasing trend in scores over time, with progressive year-over-year improvements despite some slight variations in the rate of increase. This consistent high performance suggests strong institutional management and effective implementation of planned activities across most agricultural training institutes.

KPI 17: % of Institutes above 80% of Enrolment/Seat Capacity	
KPI 17 **MoA** 73.7 74.9 75.8 76.6 **2020** **2021** **2022** **2023**	**In 2023, the value of KPI 17 (Percentage of Institutes above 80% of Enrolment/Seat Capacity) is 76.56%.**There has been consistent improvement from 73.72% in 2020 to 76.56% in 2023, indicating that more institutes are filling a substantial proportion of their available seats. MoA's analysis describes a relatively stable percentage of admitted students over the observed period, with only minor fluctuations within a narrow range of approximately 89-90.5%. This stability suggests consistent demand for agricultural education programs across institutions, with most operating at reasonably high enrolment capacity.
KPI 19: Enrolment Rate of Students with Special Needs	
KPI 19 **MoA** 0.21 0.27 0.41 0.50 **2020** **2021** **2022** **2023**	**In 2023, the value of KPI 19 (Enrolment Rate of Students with Special Needs) is 0.502%.**This represents significant growth from 0.209% in 2020, more than doubling over the four-year period. While still a small percentage, this points to improved inclusivity in agricultural education. MoA's analysis describes a fluctuating trend, with enrolment reaching its peak in 2022 before declining in subsequent years. This pattern of initial improvement followed by decline suggests that initiatives to increase participation of students with special needs may have been inconsistent or faced implementation challenges that prevented sustained progress.
KPI 20: % TVET Institutes with Expenditure Capacity above 80%	
KPI 20 **MoA** 100 100 100 100 **2020** **2021** **2022** **2023**	**In 2023, the value of KPI 20 (Percentage of TVET Institutes with Expenditure Capacity above 80%) is 100%.**This perfect score has been consistently maintained throughout the entire 2020-2023 period, demonstrating exceptional financial management capacity across all agricultural training institutes. This consistent high performance in budget utilization suggests efficient administrative systems that enable institutes to fully implement planned activities and maximize the use of available resources, an especially important capability given the relatively small budget allocations.

KPI 23: Allocation for TVET as % of National Budget	
KPI 23　　　　　MoA 0.0102　0.00106　0.0093　0.0075 2020　2021　2022　2023	**In 2023, the value of KPI 23 (Allocation for TVET as Percentage of National Budget) is 0.0075%.** This represents a concerning 26.5% reduction from the 2020 level, indicating declining financial prioritization for agricultural education. MoA's analysis confirms this downward trend, noting a small increase in 2021 followed by consistent decreases through 2024. Their analysis suggests this "might indicate a shifting priority in the national budget, with funds possibly being redirected to other areas or sectors," raising concerns about the long-term financial sustainability of agricultural education programs.
KPI 24: % Annual Increase in Workshop Equipment Budget	
KPI 24　　　　　MoA 0　0　0　0 2020　2021　2022　2023	**In 2023, the value of KPI 24 (Percentage Annual Increase in Workshop Equipment Budget) is 0%.** This represents the continuation of a flat funding pattern that has persisted throughout the entire period. MoA's analysis provides context with 2024 figures showing a significant gap between allocated budget (26.85 lakh taka) and actual demand (56 lakh taka) for workshop equipment. This persistent zero-growth funding for practical training infrastructure, combined with the substantial funding shortfall, suggests potential compromises in the quality and relevance of hands-on training, a critical component of effective agricultural education.

In conclusion, the overall trend trajectory in MoA KPI performance shows encouraging progress in several areas. The consistently high completion rates, improving APA scores, strong financial management at the institution level, and increasing stipend coverage demonstrate resilience and commitment to quality agricultural education. The growing enrolment of students with special needs and the modest improvements in gender parity suggest steady progress toward greater inclusivity. As the MoA's analysis suggests, with appropriate policy adjustments – particularly in teacher training approaches, budget allocations, and focused efforts to increase youth and female participation – agricultural TVET institutions are well-positioned to build on these positive trends and address remaining challenges to better serve Bangladesh's agricultural sector.

3.3 Ministry of Expatriates Welfare and Overseas Employment

3.3.1 MINISTRY &TVET SYSTEM OVERVIEW

Vision and Mission: The Ministry of Expatriates' Welfare and Overseas Employment (Moe WOE) envisions ensuring the safety, rights, and welfare of Bangladeshi expatriates while promoting national development through strategic migration. Its mission focuses on expanding foreign employment opportunities by delivering global market-oriented training, ensuring migrant welfare, and implementing efficient migration governance.

Introduction and Background: The Ministry of Expatriates' Welfare and Overseas Employment was established on December 20, 2001, as a vital arm of the Government of Bangladesh. It serves as the key institution mandated to manage labor migration and ensure the welfare of Bangladeshi expatriates abroad. The Ministry facilitates safe and structured overseas employment, safeguards the rights of migrant workers, and promotes economic development through the steady inflow of remittances. This contribution to the country's economy is significant - reducing unemployment and bringing in foreign currency - making the Ministry's efforts critical to national growth and poverty alleviation.

Key Objectives and Functions

1. **Welfare and Rights of Migrants**
   - Ensure the protection and welfare of Bangladeshi workers abroad.
   - Promote safe, orderly, and regular migration.
2. **Economic Development through Remittances**
   - Strengthen remittance flows by expanding opportunities for foreign employment.
   - Leverage remittances to support national socio-economic development.
3. **Expanding Overseas Employment Opportunities**
   - Facilitate job placement for Bangladeshi workers in global labor markets.
   - Target countries with high demand for skilled and semi-skilled labor.
4. **International Cooperation**
   - Engage in bilateral and multilateral agreements to broaden employment opportunities.
   - Foster international partnerships to safeguard migrant worker rights.
5. **Training and Skill Development**
   - Equip workers with job-ready skills through structured training programs.
   - Align training curricula with global labor market demands.

Core Responsibilities of the Ministry

- Protect and promote the rights of Bangladeshi migrant workers.
- Manage recruitment and licensing of overseas employment agencies.
- Provide pre-departure orientation and repatriation assistance.
- Facilitate agreements with foreign governments for labor export.
- Deliver skill training aligned with international standards.
- Monitor and regulate the labor migration process.

To fulfill these responsibilities, the Ministry operates through several specialized departments and agencies:

- **Bureau of Manpower, Employment and Training (BMET)**: Administers training and overseas job placements.
- **Wage Earners' Welfare Board (WEWB)**: Offers legal aid, financial support, and repatriation services to distressed migrants.
- **Bangladesh Overseas Employment and Services Limited (BOESL)**: A government recruitment agency facilitating overseas employment.
- **Probashi Kallyan Bank**: Provides specialized financial services for expatriates and returnee migrants.
- **Labor Wing Abroad**: Provide legal aid and dispute resolution services, emergency support such as shelter and counseling, monitor job conditions, contract verification, negotiate agreements, policy advocacy, employer verification, work permit process support, community engagement, promote formal remittance channels and repatriation coordination, etc.

BMET Skill Development and Migration Support: The Bureau of Manpower, Employment and Training (BMET) serves as the central institution for workforce development and overseas employment facilitation. Through its extensive network of 6 Institutes of Marine Technology (IMTs) and 104 Technical Training Centers (TTCs), BMET delivers comprehensive training to meet both domestic and international labor market needs. This training footprint continues to expand at the grassroots level, with 40 new TTCs already established in Upazilas and 50 more under development.

In fiscal year 2023-2024, BMET's training initiatives reached 1,219,058 individuals, comprising 1,185,301 males and 33,757 females (2.77%). Majority of the BMET trainees are enrolment in short training courses (below 3 months), representing over 90% of all trainees of BMET since 2021.

Table 16: BMET Total Enrolment 2020-2024

Year	Courses		Total
	Below 3 months	**3 months & above**	
2020	154,511	31,181	185,692
2021	513,344	33,635	546,979
2022	989,112	89,100	1,078,212
2023	1,128,201	90,857	1,219,058

The BMET training programs span a wide range of disciplines including technical trades, IT skills, language training, and pre-departure orientations. The core trades and skills offered include:

- Refrigeration & Air Conditioning

- Electrical Installation & Maintenance
- Automotive Mechanics
- Welding & Fabrication
- Plumbing & Pipe Fitting
- Machine Tools Operation
- Dress Making & Catering
- Computer Operation
- Heavy Equipment Operation

Pre-Departure Orientation (PDO) forms a crucial component of BMET's training portfolio. All migrant workers must complete a mandatory 3-day PDO, with specialized 7- to 10-day orientations available for workers headed to South Korea, Seychelles, and select other destinations. During FY 2023-2024, a remarkable 1,105,099 individuals participated in these orientation programs.

Special Training Programs: BMET implements several specialized training programs to enhance employability and skills recognition. The Recognition of Prior Learning (RPL) program certified 10,844 individuals based on their existing skills during the reporting period.

- Driving training has emerged as an important focus area. With support from the Skills for Employment Investment Program (SEIP), BMET offers a four-month "Motor Driving with Basic Maintenance" course across 95 TTCs, which trained 10,314 individuals. Additionally, 15,780 workers received three-month driving training preparing them for both domestic and overseas employment opportunities.

- The Japan Internship Program represents a successful international partnership, with 153 workers sent to Japan in FY 2023-2024 under a MoU with IM Japan. This program, which has facilitated the placement of 606 technical interns to date, operates without imposing migration costs on the workers.

- Female migrant empowerment receives special attention through dedicated housekeeping training programs. BMET offers two-month residential housekeeping training at 35 TTCs, along with an advanced four-month residential course specifically designed for those migrating to Hong Kong. These programs trained 9,608 women in housekeeping during FY 2023-2024.

Support Initiatives and Collaborations: To enhance training outcomes, BMET is introducing a training allowance beginning in FY 2024-2025, with trainees receiving BDT 150 per day, subject to attendance and assessment participation. The bureau also prioritizes trainer development, providing specialized certifications such as NSC Level-3 and NC Pedagogy Level-4, complemented by performance-based incentives.

Language proficiency represents a strategic focus area, with courses offered in Japanese, English, Korean, and Chinese (both Mandarin and Cantonese) across 44 TTCs. These language programs prepare workers specifically for job markets in Japan, Korea, China, and Hong Kong. Key collaborative efforts include:

- **Joint Initiatives**: Partnerships with LGED, SDF, and BRDB to implement inclusive skill development programs targeting for vulnerable populations, especially rural women.
- **Skill Verification for Saudi Market**: Under TAKAMOL's SVP, 8,407 workers were certified in 53 trades for the Saudi Arabian labor market in FY 2023-2024.
- **KOICA & SEIP Support**: Korean International Cooperation Agency provides technical assistance that has resulted in upgraded facilities, modern training tools, and updated competency standards for 22 occupations.

Conclusion: The Ministry of Expatriates' Welfare and Overseas Employment, through its various agencies such as BMET, continues to transform the labor migration landscape of Bangladesh. By expanding employment opportunities, strengthening skills development, and enhancing the welfare of migrant workers, the Ministry contributes substantially to both individual empowerment and the broader socio-economic development of the country. As remittances remain a vital source of foreign exchange, the Ministry's ongoing efforts to facilitate safe migration and protect migrant rights support national economic stability and inclusive growth.

3.3.2 STATISTICAL SUMMARY AND KPI PERFORMANCE

The BMET TVET system under Moe WOE demonstrated remarkable expansion between 2020-2023, with institutes increasing by 54.3% (from 70 to 108). While teaching staff grew by 18% (1,336 to 1,576), student enrolment saw dramatic growth of 191.4%, nearly tripling from 31,181 to 90,857. This growth was particularly significant between 2021-2022, when enrolment jumped by 165% (from 33,635 to 89,100). Female participation increased not only in absolute numbers (from 7,484 to 25,440) but also proportionally, rising from 24% to 28% of total enrolment. The male-to-female ratio improved from approximately 3:1 in 2020 to 2.6:1 in 2023, indicating progress toward greater gender balance. Notably, these statistics only include courses 3 months or longer as per UNESCO TVET definition, representing less than 10% of total trainees, as the vast majority of participants attend short courses specifically designed for overseas employment preparation.

Table 17: BMET TVET Statistical Summary 2020-2023

Years	Institutes	Teachers	TVET Enrolment		
			Male	**Female**	**Total**
2020	70	1,336	23,697	7,484	31,181
2021	70	1,419	25,226	8,409	33,635
2022	95	1,734	65,043	24,057	89,100
2023	108	1,576	65,417	25,440	90,857

A summary of the BMET TVET KPI performance from 2020- 2023 is Table 19 below.

**Table 18: BMET KPI Performance 2020-2024**
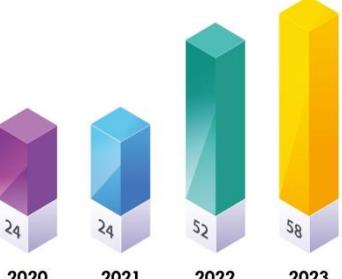
| Results Level	Result Areas	No.	SPFM Indicators	2020 (Baseline)	2021	2022	2023	2024
Outcomes	Quality & Relevance	KPI 1	Teacher-Student Ratio	24	24	52	58	50
		KPI 2	Student per Institution	445	481	938	841	839
		KPI 3	Teacher per institution	19	20	18	15	
	Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.32	0.33	0.37	0.39	0.43
		KPI 12	% of Girls Participation in TVET	24	25	27	28	30
		KPI 14	% of Students Receive Stipend	100	100	100	100	100
Sector Capacity	System Capacity	KPI 15	% of Trained Teachers	32.19	31.71	34.89	38.39	33.46
		KPI 16	% of Institutes above 90% in APA Score	75.71	98.57	90.53	92.59	93.64
	Institute Capacity	KPI 17	% of Institutes above 80% of Enrolment/Seat Capacity	100	100	100	100	100
		KPI 18	% of TVET Institute with TSR Below 30	0	0	0	0	0
		KPI 20	% TVET Institutes with Expenditure Capacity above 80%	100	100	100	99.07	100
		KPI 21	% of institute signed MoU with industry	20.00	25.71	21.05	20.37	22.73
		KPI 22	% of Graduates Provided Employment Support Service through Job Placement Cell	32.73	36.60	33.63	33.63	35.15
	TVET Financing	KPI 23	Allocation for TVET as % of National Budget	0.03	0.02	0.03	0.03	0.03
		KPI 24	% Annual Increase in TTC Workshop Equipment Budget					7.75
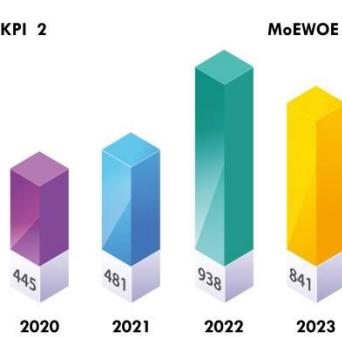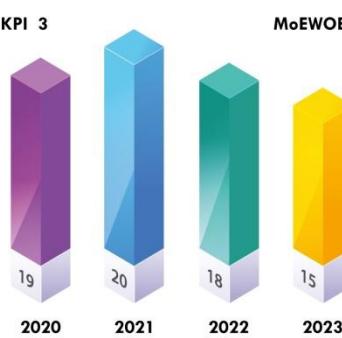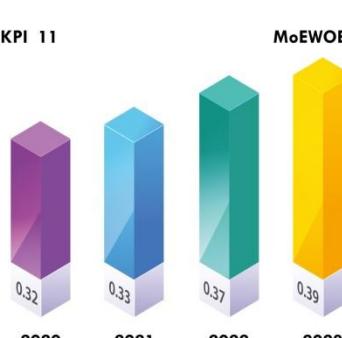
Ministry of Expatriates Welfare and Overseas Employment's TVET performance across key indicators reveals significant challenges alongside some positive developments across the three main result areas. The quality and relevance metrics show concerning trends in several key areas. The Teacher-Student Ratio has increased dramatically to 58 in 2023, more than double the 2020 figure, while the number of teachers per institution has declined to 15 from 19 over the same period. These changes, combined with a persistently high teacher vacancy rate of over 50%, suggest significant pressure on instructional resources.
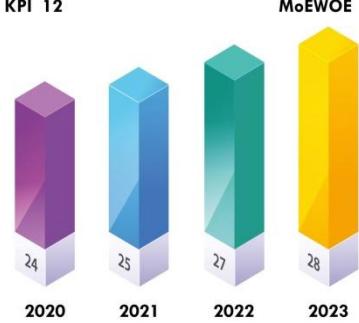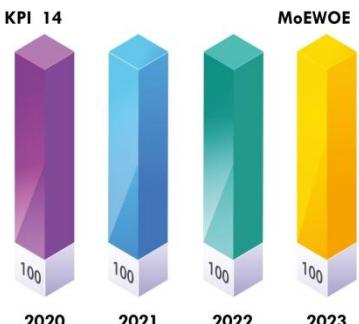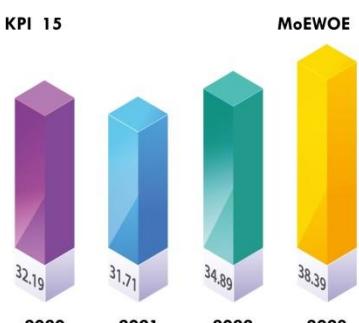
Access and participation indicators show mixed results with some positive developments. The Gender Parity Index has improved to 0.39 in 2023 from 0.32 in 2020, with girls' participation increasing to 28% from 24% over the same period, suggesting gradual progress toward more balanced gender representation. On a very positive note, 100% of students receive stipends consistently throughout the period, indicating strong financial support that eliminates economic barriers to participation. All institutes are operating above 80% of their enrolment capacity, suggesting strong demand for BMET's training programs. However, the rapid increase in students per institution (841 in 2023, up 89% from 2020) without corresponding increases in resources raises questions about whether access is expanding at the expense of quality.
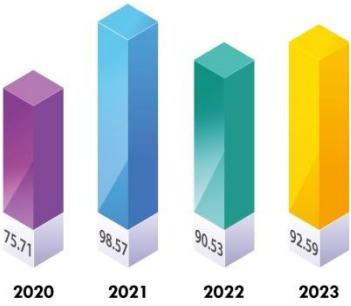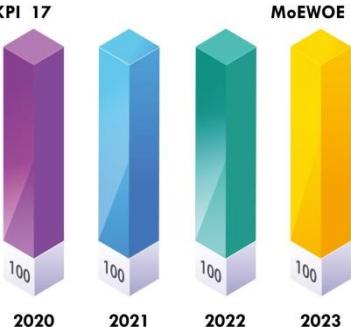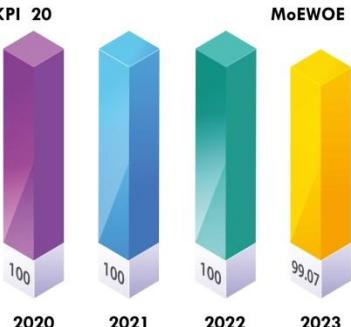
Institutional capacity indicators show some strength despite resource limitations. The percentage of institutes achieving above 90% in APA scores has improved significantly to 92.59% in 2023 from 75.71% in 2020, indicating effective institutional management. Nearly all institutes (99.07% in 2023) demonstrate strong financial management with expenditure capacity above 80%. However, serious gaps remain in industry linkages, with only 20.37% of institutes having signed MoUs with industry partners, and just 33.63% of graduates receiving employment support services through job placement cells. The percentage of trained teachers, while improving to 38.39% in 2023, remains below 40%, indicating significant gaps in instructor preparation. Financial resources remain constrained, with the allocation for TVET as a percentage of the national budget consistently at a very modest 0.03%.
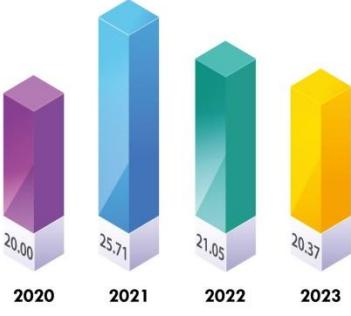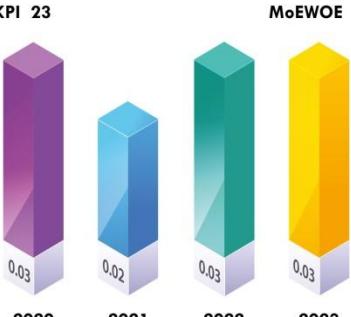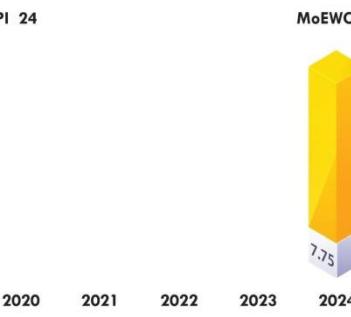
Individual KPI performance over 2020 (baseline year) to 2023 is presented below.

| Result Area: Quality & Relevance	
KPI 1: Teacher-Student Ratio	
KPI 1 MoEWOE 24 24 52 58 2020 2021 2022 2023	**In 2023, the value of KPI 1 (Teacher-Student Ratio) is 58.** The Teacher-Student Ratio in BMET's TVET institutions has shown a dramatic increase since 2020, more than doubling from 24 students per teacher to 58 in 2023. This sharp rise began in 2022, when the ratio jumped from 24 to 52, followed by a further increase in 2023. Such a significant change indicates a substantial shift in classroom with each teacher now responsible for more than twice as many students compared to just a few years earlier. This could potentially impact

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	instructional quality and personalized attention available to students in overseas employment-focused training programs.
KPI 2: Student per Institution	
	In 2023, the value of KPI 2 (Students per Institution) is 841. Student numbers increased significantly from 445 in 2020 to a peak of 938 in 2022 before declining slightly to 841 in 2023. This represents a significant 89% increase from the 2020 baseline year figure. The growth pattern was not linear, with a particularly sharp jump in 2022 when the average reached 938 students per institution, before declining slightly to 841 in 2023. The substantial increase in students per institution suggests growing demand for overseas employment training, though the recent decline may indicate a stabilization or capacity limitations being reached at some facilities.
KPI 3: Teacher per institution	
	In 2023, the value of KPI 3 (Teacher per Institution) is 15. This represents a significant decline from 19 teachers per institution in 2020, with a consistent downward trend throughout the four-year period. When viewed alongside the dramatic increase in students per institution, this declining number of teachers points to significant pressure on instructional resources. The combination of more students and fewer teachers per institution explains the rapidly rising teacher-student ratio and suggests potential challenges in maintaining educational quality and sufficient individualized instruction.
Result Area: Access, Participation and Affordability	
KPI 11: Gender Parity Index in TVET Enrolment	
	In 2023, the value of KPI 11 (Gender Parity Index in TVET Enrolment) is 0.39. This represents a steady improvement from 0.32 in 2020, indicating progress toward gender balance in BMET's TVET programs. However, despite this positive trend, the index remains far below parity, suggesting that female participation continues to lag significantly behind male enrolment. This gender imbalance may reflect broader patterns in overseas employment, where certain sectors may be dominated by male workers, but it also suggests potential opportunities to expand female participation in appropriate overseas employment sectors.

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| KPI 12: % of Girls Participation in TVET	
KPI 12 MoEWOE 24 25 27 28 2020 2021 2022 2023	**In 2023, the value of KPI 12 (Percentage of Girls' Participation in TVET) is 28%.** This represents a moderate increase from 24% in 2020, indicating that female participation in BMET's TVET programs has grown by four percentage points over the four-year period. While this positive trend aligns with the improving Gender Parity Index, female students still constitute less than one-third of the total enrolment. This suggests continued gender disparity in access to training for overseas employment, perhaps reflecting traditional gender roles or the nature of available overseas positions.
KPI 14: % of Students Receive Stipend	
KPI 14 MoEWOE 100 100 100 100 2020 2021 2022 2023	**In 2023, the value of KPI 14 (Percentage of Students Receive Stipend) is 100%.** This perfect coverage has been consistently maintained throughout the entire period, indicating universal financial support for students in BMET's TVET programs. This comprehensive stipend program represents a significant strength in BMET's approach to vocational education, potentially reducing financial barriers to participation and supporting student retention. The consistent 100% coverage suggests a strong institutional commitment to financial accessibility in training for overseas employment.
Result Area: TVET Sector Capacity	
KPI 15: % of Trained Teachers	
KPI 15 MoEWOE 32.19 31.71 34.89 38.39 2020 2021 2022 2023	**In 2023, the value of KPI 15 (Percentage of Trained Teachers) is 38.39%.** The percentage has increased from 32.19% in 2020 to 38.39% in 2023, with a slight dip to 31.71% in 2021, indicating a gradual increase in the proportion of teachers who have received training. However, despite this positive trend, less than 40% of teachers have been trained, suggesting significant room for improvement in instructor preparation. The low percentage of trained teachers may impact instructional quality and could contribute to the high dropout rates and declining completion rates observed in other KPIs.

KPI 16: % of Institutes above 90% in APA Score	
KPI 16 **MoEWOE** 75.71 98.57 90.53 92.59 2020 2021 2022 2023	**In 2023, the value of KPI 16 (Percentage of Institutes above 90% in APA Score) is 92.59%.** This represents a significant improvement from 75.71% in 2020, with particularly strong performance in 2021 when 98.57% of institutes achieved above 90% in their Annual Performance Agreement scores. This generally high and improving performance suggests strong institutional management and effective implementation of planned activities across most BMET training institutes, despite challenges in other areas

KPI 17: % of Institutes above 80% of Enrolment/Seat Capacity	
KPI 17 **MoEWOE** 100 100 100 100 2020 2021 2022 2023	**In 2023, the value of KPI 17 (Percentage of Institutes above 80% of Enrolment/Seat Capacity) is 100%.** This perfect rate has been consistently maintained throughout the entire 2020-2023 period, indicating that all BMET institutes are operating at high enrolment capacity, due to high enrolment in short-term courses. This universal high utilization of available seats suggests strong demand for BMET's training programs, efficient enrolment management, and effective outreach to potential students interested in overseas employment opportunities.

KPI 18: % of TVET Institute with TSR Below 30	
KPI 18 **MoEWOE** 0 0 0 0 2020 2021 2022 2023	**In 2023, the value of KPI 18 (Percentage of TVET Institute with TSR Below 30) is 0%**. This figure has remained consistently at zero throughout the entire period, indicating that none of BMET's institutes maintain a teacher-student ratio below 30. This aligns with the high overall teacher-student ratio reported in KPI 1 and suggests that all institutes are operating with relatively high numbers of students per teacher. The absence of any institutes with lower ratios indicates a system-wide pattern of high student-to-teacher ratios that could impact instructional quality.

KPI 20: % TVET Institutes with Expenditure Capacity above 80%	
KPI 20 **MoEWOE** 100 100 100 99.07 2020 2021 2022 2023	**In 2023, the value of KPI 20 (Percentage TVET Institutes with Expenditure Capacity above 80%) is 99.07%.** This represents a slight decline from the perfect 100% recorded in 2020-2022, though it remains extremely high. This consistently strong performance in budget utilization suggests efficient financial management across nearly all BMET institutes, enabling them to effectively implement planned activities and make maximum use of allocated resources. The slight decline in 2023 may warrant monitoring to ensure it does not represent the beginning of a more significant trend.

KPI 21: % of institute signed MoU with industry	
	In 2023, the value of KPI 21 (Percentage of Institute Signed MoU with Industry) is 20.37%. This represents a slight increase from 20.00% in 2020, though there was a higher peak of 25.71% in 2021 before a subsequent decline. With only about one-fifth of institutes having formal industry partnerships, there appears to be significant room for improvement in establishing connections between training programs and potential employers. These limited industry linkages could impact the relevance of training to actual workplace requirements and affect graduate employment prospects.

KPI 22: % of Graduates Provided Employment Support Service through Job Placement Cell	
	In 2023, the value of KPI 22 (Percentage of Graduates Provided Employment Support Service) is 33.63%. This represents a slight increase from 32.73% in 2020, with a peak of 36.60% in 2021 before declining again. With only about one-third of graduates receiving employment support services, there appears to be a significant gap in the transition support from training to actual overseas employment. This limited coverage suggests potential inefficiencies in connecting trained workers with appropriate job opportunities abroad.

KPI 23: Allocation for TVET as % of National Budget	
	In 2023, the value of KPI 23 (Allocation for TVET as Percentage of National Budget) is 0.03%. This modest figure has remained stable throughout the period, with no change from 2020 and 2022 levels, and only a slight dip to 0.02% in 2021. While consistent, this extremely small proportion of the national budget allocated to BMET's TVET programs suggests limited financial resources relative to the sector's importance for overseas employment and remittance generation. The stable but minimal funding may constrain program expansion and quality improvement initiatives.

KPI 24: % Annual Increase in TTC Workshop Equipment Budget	
	In 2024, the value of KPI 24 (Percentage Annual Increase in Technical Training Centres' (TTC) Workshop Equipment Budget) is 7.75%. This represents the first year of data collection for this new indicator, establishing a baseline for tracking investment in workshop equipment at BMET's TTCs. The 7.75% increase demonstrates MoEWOE's commitment to enhancing the physical infrastructure and equipment available for hands-on technical training.

In conclusion, despite many challenges, particularly in program completion rates and teaching resources, there are positive signs and progress in several areas. The full stipend coverage, high enrolment capacity utilization, and improving APA scores demonstrate institutional strengths that provide a foundation for further development. The gradual improvements in gender parity and teacher training suggest positive momentum in these critical areas. With focused attention on reducing dropout rates, filling teacher vacancies, strengthening industry connections, and enhancing employment support services, BMET's TVET institutions can build on these strengths to better fulfill their vital role in preparing Bangladesh's workforce for successful overseas employment opportunities, contributing to both individual economic advancement and national development through remittance inflows.

3.4 Ministry of Shipping

3.4.1 MINISTRY & TVET SYSTEM OVERVIEW

The Ministry of Shipping of Bangladesh is a key government agency responsible for overseeing both international and national maritime operations. It administers national port authorities, the Department of Shipping, sea-going vessel operations through the Shipping Corporation, Inland Water Transport Authorities and corporation, Maritime Education & Training, and the River Conservation Commission. The Ministry ensures maritime safety and environmental protection in accordance with IMO guidelines and international maritime regulations. It plays a crucial role in developing skilled maritime workforce through specialized Technical and Vocational Education and Training (TVET) programs at both graduate and vocational levels, designed to produce world-class maritime leaders while generating approximately 4800 Crore BDT annually in foreign currency. Maintaining continuous quality standards with regular upgrades is essential to meet international requirements for safe, efficient, and sustainable shipping operations.

Maritime TVET Institutes in Bangladesh

Bangladesh Marine Academy (BMA): Bangladesh Marine Academy Chattogram (BMA C) is the pioneer institute that produces world-class maritime leaders since 1962 in compliance with the IMO STCW Convention 1978 as amended. It offers:

- Bachelor of Science in Nautical Science
- Bachelor of Science in Marine Engineering
- Pre-sea training for Deck and Engine Officers
- Advanced courses for officers and engineers
- Conducts consultancy and research activities

Five additional academies are currently operational: BMA-B, BMA-P, BMA-R, BMA-S, and MFA.

National Maritime Institute (NMI): Founded in 1952 as the Seamen's Training Center and renamed in 2007, NMI provides comprehensive training for ratings in accordance with the STCW Convention, covering:

- Nautical services
- Engineering services
- Catering services

Key Areas of Focus

- **Skilled Manpower Development**: Developing expertise through various TVET programs for maritime sectors including MET (nautical & engineering), logistics, shipbuilding, port operations, and inland ship personnel.
- **Maritime Regulatory Regimes**: Effective implementation of maritime safety regulations such as SOLAS, MARPOL, and ISM through Flag-State implementation.
- **Employment and Entrepreneurship**: Active communication with the International Maritime Organization and collaborations with international shipping companies like K-Line Japan, ONE Japan, Sea Consortium, and Express Feeder.
- **Alignment with Global Standards**: Ensuring TVET programs meet international standards through proper implementation of the STCW Convention and Quality Standard System (QSS).
- **Public Awareness and Accessibility**: Promoting the value of technical education and making training opportunities accessible to all backgrounds through financial assistance, scholarships, and accessible training centers.

Sector Challenges

The maritime sector is one of the major domains for Bangladesh's economy due to its vital role in shipping that handles over 90% of international trade and generating approximately 400 million USD annually through the employment of around 13,000 seafarers. Despite its importance, several challenges hinder growth and efficiency:

- **Infrastructure Limitations**: Port congestion and limited terminal capacity at Chattogram and Mongla ports, with Matarbari (the only sea port) still in development.
- **Technology Gap**: Limited adoption of modern shipping technology and insufficient automation in ports leading to operational inefficiencies and higher costs.
- **Seafarer Employment Barriers**: Visa restrictions from countries like Dubai, USA, and Singapore, coupled with increasing competition from India, Philippines, and China.
- **Safety and Security Issues**: Inadequate safety standards leading to vessel collisions and cargo damage, plus security risks including piracy and theft in the Bay of Bengal region.

Future Directions: Data-Driven Policy Making

- Research and Development: Establish research centers focused on maritime education and training in collaboration with universities, industry experts, and international bodies.
- Labor Market Analysis: Collect and utilize data on maritime labor market demands to adapt curricula and training programs accordingly.

Conclusion: Maritime TVET represents the optimal solution for developing qualified personnel in Bangladesh's shipping sector with a view to enhancing both financial and economic growth of the country. The current MET training system emphasizes practical skills

and goal-based training that produces skilled human resources for maritime cadets and ratings, shipping logistics personnel, and the marine and ocean sectors, particularly for blue economy initiatives. Although ensuring employment remains increasingly challenging, the enhancement of TVET programs offers a pathway for underprivileged youth to become highly skilled maritime workers. Ongoing cooperation with shipping industries is essential to provide more employment opportunities for seafarers, while maintaining international quality standards will ensure Bangladesh continues to contribute valuable maritime professionals to the global shipping industry.

3.4.2 STATISTICAL SUMMARY AND KPI PERFORMANCE

The Ministry of Shipping's TVET system experienced substantial growth from 2019-2024, with institutes tripling from 2 to 6 in 2023. Teaching staff increased by 68.8% (138 to 233), while student enrolment more than doubled from 1,032 to 2,096 (103% growth). The data shows a temporary enrolment decline during 2021-2022, with consecutive years of decrease (1,261 to 994 to 946), likely reflecting COVID-19 impacts on maritime education and training. This was followed by substantial recovery and growth in 2023-2024, with enrolment increasing by 111% (from 946 to 1,994) coinciding with the tripling of institutes.

Table 19: Ministry of Shipping TVET Statistical Summary 2019-2024

	Institute	Teachers	Enrolment
2019	2	138	1,032
2020	2	144	1,261
2021	2	145	994
2022	2	141	946
2023	6	227	1,994
2024	6	233	2,096

A summary of the Ministry of Shipping KPI performance from 2020- 2023 is Table 21 below.

Table 20: MoS KPI Performance 2019-2024
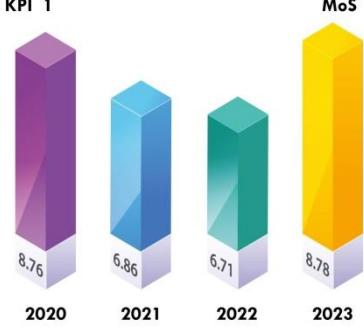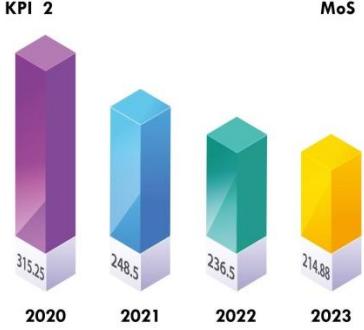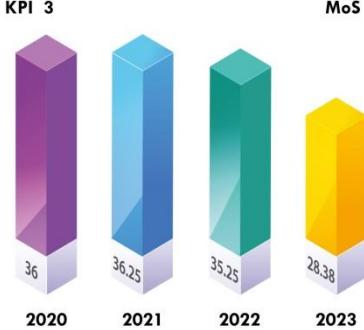
Results Level	Result Areas	No.	SPFM Indicators	2020 (Baseline)	2021	2022	2023	2024
Outcomes	Quality & Relevance	KPI 1	Teacher-Student Ratio	8.76	6.86	6.71	8.78	9
		KPI 2	Student per Institution	315.25	248.5	236.5	214.88	199.5
		KPI 3	Teacher per institution	36	36.25	35.25	28.38	29.13
		KPI 4	% of Teacher Vacancy	36.13	36.13	53.25	72.55	72.55
		KPI 5	Completion Rate at Diploma Level (%)	96.97	98.25	96.94	97.1	95
		KPI 6	Completion Rate at HSC (Voc) Level (%)	97.06	98	98.02	98.99	97.99
		KPI 8	Dropout Rate at Diploma Level (%)	3.33	1.75	3.06	2.9	5
		KPI 9	Dropout Rate at HSC (Voc) Level (%)	2.94	2	1.98	1.01	2.01
	Access, Participation & Affordability	KPI 11	Gender Parity Index in TVET Enrolment	0.11	0.09	0.06	0.14	0.14
		KPI 12	% of Girls Participation in TVET	11.18	8.57	5.66	13.64	14.29
		KPI 13	Proportion of Youth (15-24 year) Enrolled in TVET (%)	0.00	0.00	0.00	0.00	0.00
		KPI 14	% of Students Receive Stipend	59.19	46	44.44	14.34	14.97
Sector Capacity	System Capacity	KPI 15	% of Trained Teachers	80.29	79.71	69.05	50	48.99
		KPI 16	% of Institutes above 90% in APA Score				93.13	94.14
	Institute Capacity	KPI 17	% of Institutes above 80% of Enrolment/Seat Capacity	100	100	100	100	100
		KPI 20	% TVET Institutes with Expenditure Capacity above 80%	100	100	100	100	100
		KPI 21	% of institute signed MoU with industry	25.00	25.00	25.00	12.50	12.50
		KPI 22	% of Graduates Provided Employment Support Service through Job Placement Cell	73.00	67.00	59.00	51.00	49.00
	TVET Financing	KPI 23	Allocation for TVET as % of National Budget	5.00	4.53	12.71	11.51	10.55

The Ministry of Shipping's TVET performance reveals a complex picture with significant strengths as well as challenges across the three main result areas. MoS's educational quality indicators show exceptional outcomes alongside worrying staffing trends. The teacher-student ratio remains favorably low at 8.78 in 2023, enabling personalized instruction in maritime vocational programs. Completion rates are outstanding at both diploma (97.1%) and HSC (Voc) levels (98.99%), with correspondingly low dropout rates, indicating excellent program effectiveness and student commitment. However, major concerns emerge in staffing, with teacher vacancy rates rising dramatically to 72.55% in 2023 and the percentage of trained teachers declining to just 50%. These staffing challenges could constraint the ministry's ability to maintain the high-quality education needed to produce properly qualified maritime professionals who meet international certification standards.
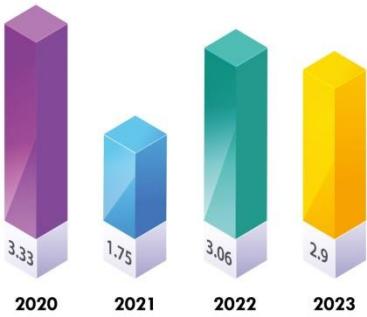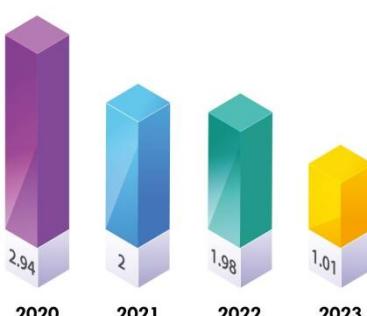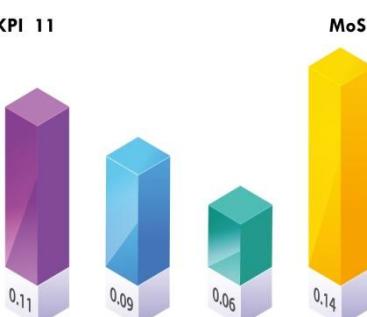
Access and participation indicators reveal significant gender disparities and declining financial support. Based on sampling from one institution, the Gender Parity Index remains extremely low at 0.14 in 2023, with female participation at just 13.64%, indicating severe underrepresentation of women in maritime vocational education. While this sample may not represent all maritime TVET programs, it suggests a significant gender imbalance that warrants attention. Most concerning is the dramatic reduction in stipend coverage, which fell from 59.19% in 2020 to just 14.34% in 2023, potentially creating economic barriers to youths from less well-off families. On a positive note, all institutes are consistently operating above 80% of their enrolment capacity, suggesting strong demand for maritime vocational education programs despite a decline in average students per institution to 214.88 in 2023.
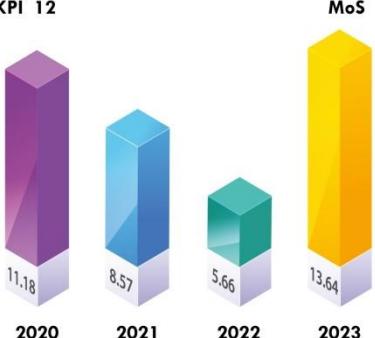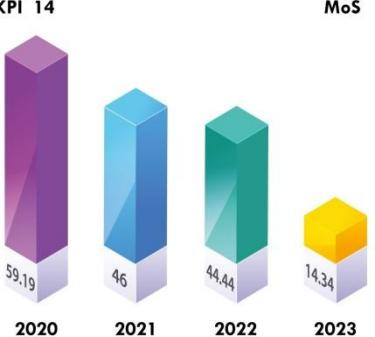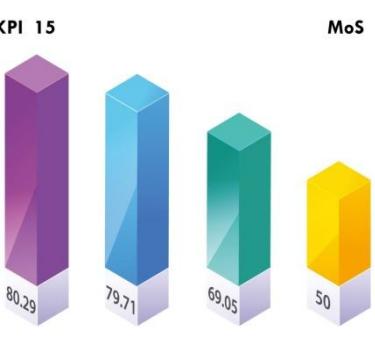
Institutional capacity indicators show strong financial management alongside concerning trends in industry linkages. All institutes consistently demonstrate excellent financial management, with 100% maintaining expenditure capacity above 80%. The percentage of institutes achieving above 90% in APA scores is high at 93.13%, indicating effective institutional management. Budget allocation has increased substantially to 11.51% of the ministry budget in 2023, reflecting significant investment in maritime vocational education. However, industry connections have weakened, with the percentage of institutes signed MoU with industry halving to just 12.50% in 2023, and employment support services declining to 51% of graduates. These trends are concerning given the importance of industry alignment and employment connections in maritime vocational education.
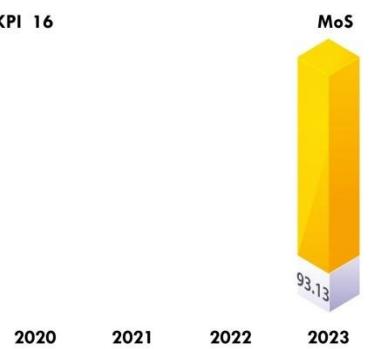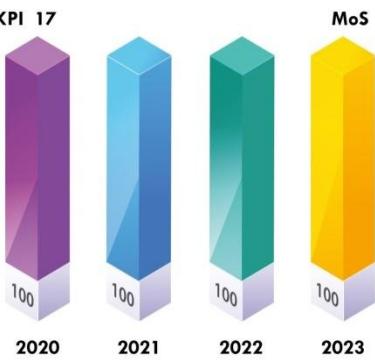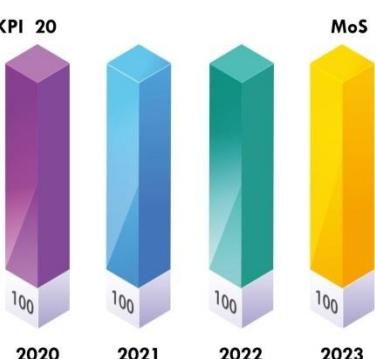
Individual KPI performance over 2020 (baseline year) to 2023 is presented below.

Result Area: Quality & Relevance

KPI 1: Teacher-Student Ratio

In 2023, the value of KPI 1 (Teacher-Student Ratio) is 8.78. This represents a stable figure compared to 2020's 8.76, though there were fluctuations during the intervening years with the ratio dropping to 6.71 in 2022 before returning to nearly the same level in 2023. This relatively low teacher-student ratio stands in stark contrast to the other ministries' TVET programs and represents a significant strength for MoS's maritime education institutions. This favorable ratio likely contributes to more personalized instruction and hands-on training, which is particularly important in specialized maritime vocational education where practical skills are essential for employment readiness.

KPI 2: Student per Institution

In 2023, the value of KPI 2 (Students per Institution) is 214.88. Student numbers show a consistent decline from 315.25 in 2020 to 214.88 in 2023, representing a significant decrease the 2020 baseline year, with a consistent downward trend over the four-year period. This declining enrolment per institution could reflect changing demand patterns or a strategic shift toward smaller class sizes to ensure quality instruction. The relatively low and decreasing number of students per institution may also reflect the specialized and selective nature of maritime vocational education, which requires maintaining strict standards to meet international certification requirements for seafarers and other maritime professionals.

KPI 3: Teacher per institution

In 2023, the value of KPI 3 (Teacher per Institution) is 28.38. The number has declined from 36 in 2020 to 28.38 in 2023, with the most significant drop occurring between 2022 and 2023. Despite this reduction, the number of teachers per institution remains substantially higher than in other ministries' TVET programs. This relatively high staffing level suggests a commitment to maintaining low teacher-student ratios and providing specialized instruction across various maritime disciplines. The decline in teacher numbers may reflect resource constraints or consolidation efforts as the ministry manages its maritime TVET programs.

KPI 4: % of Teacher Vacancy	
KPI 4 **MoS** 36.13 36.13 53.25 72.55 2020 2021 2022 2023	**In 2023, the value of KPI 4 (Teacher Vacancy) is 72.55%.** This represents a dramatic increase from 36.13% in 2020, with the most substantial jump occurring between 2022 and 2023. This alarming trend indicates that nearly three-quarters of approved teaching positions remain unfilled, which could seriously impact the ministry's ability to deliver quality maritime vocational education. This growing vacancy rate may reflect challenges in recruiting qualified instructors with appropriate maritime experience and credentials, particularly given the specialized nature of maritime TVET and potential competition from the shipping industry for qualified professionals.
KPI 5: Completion Rate at Diploma Level (%)	
KPI 5 **MoS** 96.97 98.25 96.94 97.1 2020 2021 2022 2023	**In 2023, the value of KPI 5 (Completion Rate at Diploma Level) is 97.1%.** This consistently high rate has varied minimally from the 2020 baseline of 96.97%, peaking at 98.25% in 2021. This consistently high completion rate indicates excellent student retention and achievement in MoS's maritime diploma programs, suggesting effective selection processes and strong student support systems. These impressive completion rates suggest that once admitted to maritime diploma programs, students are highly committed to completing their studies, likely motivated by the potential for employment in the maritime sector upon graduation.
KPI 6: Completion Rate at HSC (Voc) Level (%)	
KPI 6 **MoS** 97.06 98 98.02 98.99 2020 2021 2022 2023	**In 2023, the value of KPI 6 (Completion Rate at HSC (Voc) Level) is 98.99%.** This represents a very strong improvement from an already high 97.06% in 2020, with consistent year-over-year increases in 2021 and 2022 at over 98%. This exceptional completion rate at the Higher Secondary Certificate (Vocational) level indicates outstanding program effectiveness and student commitment. These impressive results suggest that MoS's maritime vocational programs at this level are well-designed and well-executed, with strong student engagement and appropriate support systems to ensure successful program completion.

KPI 8: Dropout Rate at Diploma Level (%)	
KPI 8 MoS 3.33 1.75 3.06 2.9 2020 2021 2022 2023	**In 2023, the value of KPI 8 (Dropout Rate at Diploma Level) is 2.9%.** The rate improved from 3.33% in 2020 to a low of 1.75% in 2021 before increasing to 2.9% in 2023. Notwithstanding, this consistently low dropout rate complements the high completion rates and indicates strong student retention in MoS's maritime diploma programs. The minimal attrition suggests effective student selection processes and robust support systems that help students overcome challenges during their studies. This positive outcome reflects the effectiveness of the ministry's approach to maritime vocational education at the diploma level.

KPI 9: Dropout Rate at HSC (Voc) Level (%)	
KPI 9 MoS 2.94 2 1.98 1.01 2020 2021 2022 2023	**In 2023, the value of KPI 9 (Dropout Rate at HSC (Voc) Level) is 1.01%.** This represents a substantial improvement from 2.94% in 2020, with consistent year-over-year decreases. This extremely low dropout rate mirrors the excellent completion rate at this level and indicates exceptional program effectiveness and student retention. Such minimal attrition suggests that MoS's maritime HSC (Voc) programs are successfully engaging and supporting students throughout their studies, creating a solid foundation for further education or direct entry into maritime employment.

Result Area: Access, Participation and Affordability	
KPI 11: Gender Parity Index in TVET Enrolment	
KPI 11 MoS 0.11 0.09 0.06 0.14 2020 2021 2022 2023	**In 2023, the value of KPI 11 (Gender Parity Index in TVET Enrolment) is 0.14.** This represents an improvement from 0.11 in 2020, though the index dipped as low as 0.06 in 2022 before recovering. It's important to note that this figure represents sampling from only one institution and may not reflect the gender balance across all maritime TVET programs. Despite this constraint, the extremely low GPI indicates severe gender imbalance in this maritime TVET program, with female participation far below male enrolment. This disparity likely reflects traditional gender norms in the maritime industry and possible cultural factors affecting women's participation in seafaring and other maritime careers.

KPI 12: % of Girls Participation in TVET	
	In 2023, the value of KPI 12 (Percentage of Girls' Participation in TVET) is 13.64%. This represents an increase from 11.18% in 2020, though participation dipped as low as 5.66% in 2022 before recovering significantly in 2023. It should be noted that this figure is based on sampling from only one institution and may not be representative of all maritime TVET programs. Despite this sampling limitation, the data suggests that female students constitute less than one-seventh of total enrolment in this program. This gender disparity suggests that maritime vocational education remains predominantly male-oriented, though the significant recovery in 2023 may indicate recent efforts to increase female participation in maritime careers
KPI 14: % of Students Receive Stipend	
	In 2023, the value of KPI 14 (Percentage of Students Receive Stipend) is 14.34%. The multi-year pattern shows a significant downward decline in financial support, starting at 59.19% in 2020 (baseline), declines to 46% in 2021, 44.44% in 2022 before dropping to 14.34% in 2023, representing a 75.8% overall reduction from baseline. This concerning trend indicates a substantial reduction in financial support for students in MoS's maritime TVET programs, potentially creating economic barriers to participation. The sharp reduction in stipend coverage could make maritime vocational education less accessible to economically disadvantaged students and may reflect budget constraints or shifting priorities in financial aid allocation.
Result Area: TVET Sector Capacity	
KPI 15: % of Trained Teachers	
	In 2023, the value of KPI 15 (Percentage of Trained Teachers) is 50%. This represents a significant decrease from 80.29% in 2020, declining slightly to 79.71% in 2021 and more notably to 69.05% in 2022. This concerning trend indicates that half of the teaching staff lack formal training, potentially affecting instructional quality in maritime TVET programs. The declining proportion of trained teachers could impact the quality of hands-on instruction and theoretical education needed to prepare students for maritime careers, where safety and technical competence are particularly critical.

KPI 16: % of Institutes above 90% in APA Score	
KPI 16 — MoS 93.13 2020 2021 2022 2023	**In 2023, the value of KPI 16 (Percentage of Institutes above 90% in APA Score) is 93.13%.** This single data point indicates that the vast majority of MoS's maritime TVET institutes are achieving high scores in their Annual Performance Agreements, suggesting strong institutional management and effective implementation of planned activities. This high performance in meeting institutional targets suggests that despite challenges in other areas, the maritime TVET institutes are generally maintaining effective administrative processes and delivering on their core objectives.

KPI 17: % of Institutes above 80% of Enrolment/Seat Capacity	
KPI 17 — MoS 100 100 100 100 2020 2021 2022 2023	**In 2023, the value of KPI 17 (Percentage of Institutes above 80% of Enrolment/Seat Capacity) is 100%.** This perfect score has been consistently maintained throughout the entire 2020-2023 period, indicating that all MoS maritime TVET institutes are operating at high enrolment capacity. This universal high utilization of available seats suggests strong demand for maritime vocational education programs, despite the decreasing average number of students per institution reported in KPI 2. This apparent contradiction might be explained by an expansion in the number of institutes or a reduction in approved seat capacity, possibly as part of efforts to maintain quality while managing enrolment.

KPI 20: % TVET Institutes with Expenditure Capacity above 80%	
KPI 20 — MoS 100 100 100 100 2020 2021 2022 2023	**In 2023, the value of KPI 20 (Percentage TVET Institutes with Expenditure Capacity above 80%) is 100%.** This perfect score has been consistently maintained throughout the entire 2020-2023 period, indicating excellent financial management across all MoS maritime TVET institutes. This strong budget utilization suggests efficient administrative systems that enable institutes to fully implement planned activities and make maximum use of allocated resources. This effective financial management is particularly important for maritime vocational education, which often requires significant investment in specialized equipment and facilities for practical training.

KPI 21: % of institute signed MoU with industry	
KPI 21 MoS 25.00 25.00 25.00 12.50 2020 2021 2022 2023	**In 2023, the value of KPI 21 (Percentage of Institute Signed MoU with Industry) is 12.50%.** This represents a significant decrease from 25.00% in 2020-2022, indicating a reduction in formal industry partnerships. With only one-eighth of institutes having signed Memoranda of Understanding with industry partners, there appears to be significant room for improvement in establishing connections between maritime training programs and potential employers. These industry linkages are particularly important in maritime vocational education, where alignment with current industry practices and equipment is essential for ensuring graduates' employability.

KPI 22: % of Graduates Provided Employment Support Service through Job Placement Cell	
KPI 22 MoS 73.00 67.00 59.00 51.00 2020 2021 2022 2023	**In 2023, the value of KPI 22 (Percentage of Graduates Provided Employment Support Service) is 51%.** The figures from 2020 to 2023 show a consistent downward movement, starting from a strong 73% in 2020 (baseline), decreasing to 67% in 2021, continuing downward to 59% in 2022, and reaching 51% in 2023. Despite this decline, MoS still provides employment support to more than half of its maritime vocational graduates, which is higher than the rates reported for other ministries. Employment support services are particularly important in the maritime sector, where connecting graduates with shipping companies and other employers often requires specialized knowledge of industry recruitment practices and certification requirements.

In conclusion, the Ministry of Shipping's TVET programs demonstrate tremendous strengths in educational outcome. The consistently outstanding completion rates, efficient financial management, and increasing budget allocation provide a solid foundation for addressing areas needing improvement. By focusing on reducing teacher vacancies, increasing the proportion of trained teachers, improving gender balance, restoring stipend coverage, and strengthening industry connections, MoS is building on its achievements in maritime vocational education. These improvements would enhance the quality and accessibility of maritime TVET programs, producing better-prepared graduates who can successfully transition to employment in the maritime sector. Strengthening these programs is particularly important given the significant role that skilled maritime professionals play in supporting Bangladesh's shipping industry and contributing to the national economy through their expertise and earning potential.

CHAPTER 4: CONCLUSION, RECOMMENDATIONS& PRIORITY ACTIONS

4.1 Observation& Conclusion

The analysis of Key Performance Indicators across four key ministries – Directorate of Technical Education (DTE), Directorate of Agriculture Extension (DAE), Bureau of Manpower, Employment and Training (BMET), and Ministry of Shipping (MoS) – reveals important patterns in Bangladesh's Technical and Vocational Education and Training sector. When compared with sector-level data from BANBEIS, these patterns highlight common challenges and divergent strengths that characterize the current state of TVET education in the country.

Sector-Level Observations

The TVET sector in Bangladesh has demonstrated substantial quantitative expansion between 2020-2023, with total institutes increasing by 46% from 7,259 to 10,595, representing significant growth in both public (52% increase) and private (45% increase) institutions. Student enrolment surged by 62.6% during this period, rising from 1,118,334 to 1,818,522, with female participation showing particularly notable growth of 76.2%. However, this rapid expansion has created pressure on teaching resources, as the total number of teachers increased by only 2.4%, resulting in a deteriorating teacher-student ratio that rose from 20.70 to 32.86 over the four-year period.

Performance indicators reveal mixed outcomes across different educational levels within the TVET system. Completion rates remain relatively stable, with diploma programs maintaining high performance at 93.66%, while HSC (Vocational) programs show more modest completion rates at 55.61%. Dropout patterns mirror these trends, with diploma programs achieving low dropout rates of 6.34%, contrasting with higher rates in HSC (Vocational) programs at 44.39%. Gender participation has shown gradual improvement, with the Gender Parity Index increasing from 0.37 to 0.42, though significant disparities persist. Youth participation in TVET has grown from 3.59% to 5.04% of the 15-24 age group, indicating increased recognition of technical education's value, though coverage remains limited relative to the target population.

BTEB's administrative data provides additional perspective on sector trends, tracking enrolment growth from 1,387,691 students in 2019 to 1,689,905 in 2023, representing approximately 22% growth over the five-year period. The Board's analysis shows TVET's share of total education enrolment increasing from 14.58% in 2014 to 19.00% in 2023, demonstrating steady progress toward the national target of 30% by 2030. Notable shifts include significant growth in SSC (Vocational) enrolment by 55% and a concerning 23% decline in four-year diploma programs, suggesting changing preferences toward shorter vocational programs. BTEB's examination data indicates variable completion patterns across program levels, with repetition rates declining consistently while dropout patterns show considerable variation.

A notable challenge is discrepancies between BANBEIS and BTEB enrolment data, which have shifted over time and show substantial variations in student counts, particularly in short courses, SSC (Vocational), and HSC programs. These differences reflect varying approaches to data classification, collection methodologies, and coverage scope between the two agencies. The development of more consistent reporting frameworks and harmonized data collection approaches between BANBEIS and BTEB represents an important priority for improving the accuracy and reliability of TVET sector monitoring and planning.

Ministry-Level Observations

Common Trends across Ministries

Teacher-student ratios vary widely but show concerning trends in several ministries. BMET (58:1) and DAE (55.9:1) have particularly high ratios, while DTE (28.21:1) is closer to the sector average reported by BANBEIS (32.86:1). Only MoS maintains a favourable ratio (8.78:1). The substantial difference between these figures suggests uneven distribution of teaching resources across the TVET sector, with some ministries facing severe instructional capacity constraints. BANBEIS data indicates the TSR has worsened from 20.70 in 2020 to 32.86 in 2023, showing deterioration in this critical quality indicator across the sector.

All four ministries face significant teacher vacancy challenges, though the severity varies considerably. In 2023 MoS reports the highest vacancy rate at 72.55%, followed by DTE at 81.55%, while BMET maintains around 50% and MoA has improved to 32.99%. These persistently high vacancy rates suggest a systemic challenge in teacher recruitment and retention in TVET institutions, creating substantial pressure on educational delivery across the sector. BANBEIS sector-level data indicates this is a widespread issue affecting educational quality nationwide.

Gender imbalance remains a persistent challenge across all ministries, with female participation significantly below parity. Gender Parity Indices range from extremely low in MoS (0.14) and DTE (0.21) to somewhat better but still imbalanced in MoA (0.45) and BMET (0.39). Female participation rates follow similar patterns, with MoS at 13.64%, DTE at 17.64%, BMET at 28%, and MoA at 31.18%. These figures contrast with the sector-wide GPI of 0.42 reported by BANBEIS, suggesting some ministries significantly underperform the national average in gender balance. BANBEIS data shows female participation at 29.53% sector-wide, highlighting the need for focused interventions to improve gender equity.

Divergent Patterns across Ministries

Ministries show markedly different patterns in student persistence and achievement. MoS demonstrate exceptionally high completion rates at both diploma (97.1%) and HSC (Voc) levels (98.99%), with correspondingly low dropout rates. MoA also maintains high completion rates at the diploma level (97.96%). In contrast, BANBEIS sector-level data

shows diploma completion at 93.66%, HSC (Voc) at 55.61%, and SSC (Voc) at 71.08%, with corresponding dropout rates of 6.34%, 44.39%, and 28.95%. These variations highlight significant differences in program effectiveness across ministries.

Institutional size varies dramatically across ministries. DTE reports 1,074 students per institution, more than five times MoS's 214.88. MoA (633) and BMET (841) fall between these two ends, all higher than the sector average of 172 reported by BANBEIS. BANBEIS data shows this metric has increased from 154 in 2020 to 172 in 2023, indicating a gradual trend toward larger institutions sector-wide. These variations reflect different institutional models, resource allocations, and enrolment patterns across ministries, creating disparate educational environments.

Ministries show different levels of success in establishing industry connections. DTE reports 66.68% of institutes with industry MOUs and MoS shows 12.50%, while BMET shows only 20.37% and MoA data is not available. Similarly, the percentage of graduates receiving employment support varies greatly, with MoS leading at 51%, followed by BMET at 33.63% and DTE at 21.15%. These differences suggest uneven development of education-to-employment pathways across the TVET sector.

Lastly, financial support for students shows substantial variation. DTE reports high stipend coverage at 77.74% and BMET maintains universal coverage at 100%, while MoA shows a solid 79.68%. In contrast, MoS reports a concerning decline to just 14.34%. BANBEIS data indicates that sector-wide stipend coverage has increased from 36.91% in 2020 to 77.74% in 2023, showing significant improvement in financial accessibility across the broader TVET landscape.

Concluding Observations

The TVET sector in Bangladesh presents a complex landscape with both shared challenges and distinctive ministerial characteristics. All ministries struggle with high teacher vacancies, gender disparity, and variable institutional performance, though to differing degrees. At the same time, they demonstrate unique strengths: MoS in completion rates and budget allocation; MoA in gender participation and completion rates; BMET in stipend coverage and educational access; and DTE in industry linkages.

BANBEIS sector-level data provides crucial context, showing that while the TVET sector has expanded significantly (with institutes increasing by 46% from 2020 to 2023), quality indicators like teacher-student ratio have deteriorated. Meanwhile, gender participation has shown modest improvement, and completion rates remain relatively stable, suggesting the sector is maintaining educational outcomes despite resource constraints.

These patterns suggest that while systemic issues affect the entire TVET sector, individual ministries have developed particular capacities that could serve as models for others. The substantial variations in key indicators highlight the need for coordinated policy approaches that address common challenges while building on existing ministerial strengths. Bridging these performance gaps while maintaining the specialized focus of each ministry remains a

challenge for developing a more coherent, effective TVET system that meets Bangladesh's human resource development needs.

4.2 Recommendations for TVET Reforms

Based on the comprehensive analysis of performance data across various ministries, the following priority reform initiatives have been identified for strengthening Bangladesh's TVET sector:

Teacher Development Plan and Vacancy Reduction: Address the critical teacher vacancy rates (ranging from 32.99% to 81.55%) through immediate recruitment to fill vacant posts and the creation of a comprehensive teacher development plan. This reform will conduct a comprehensive analysis of the current teacher deployment issue across institutions and consider initiatives for special recruitment of TVET teachers in addition to regular BCS examinations. The reform will strengthen teacher retention strategies and address administrative bottlenecks to improve staffing distribution.

Gender-Responsive TVET Promotion: Implement targeted initiatives to address severe gender imbalance in TVET enrolment through awareness campaigns, gender-sensitive curricula, and expanded admission quotas. This reform will conduct targeted awareness campaigns to highlight the benefits of TVET for girls and expand access opportunities at rural level to allow enrolling rural female students in TVET. Special attention will be given to developing female-friendly ecosystems with appropriate facilities and support systems.

Special Needs Student Enrolment Enhancement: Implement sector-wide approaches to improve the extremely low enrolment of students with special needs. This reform will develop and implement inclusive policies and programs that prioritize the enrolment and support of students with special needs. This will ensure necessary accommodations, assistive technologies, and support services are available across all TVET institutions.

Dropout Reduction and Completion Rate Improvement: Create comprehensive support mechanisms to address concerning dropout rates, particularly at SSC and HSC vocational levels. This involves implementing comprehensive career counseling and guidance programs and supporting weak students by assessing their learning gaps and individual requirements. The framework will facilitate pathways to higher education for TVET graduates and strengthen monitoring of institutions to ensure student retention.

Industry-Institution Linkage Strengthening: Establish formal industry partnerships to address the limited industry connections currently observed across ministries. This reform will forge strong partnerships with industries, employers, and recruitment agencies and collaborate with industry associations, chambers of commerce, and professional bodies to establish channels for direct communication. The initiative will enhance industrial attachment programs and ensure curriculum alignment with industry needs.

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TVET Data System Enhancement: Establish a unified TVET information management system to address incomplete, fragmented, and scattered data across institutions. This reform will establish a centralized data management system that consolidates data from various sources and ensures data integrity and accessibility. The system will enable evidence-based decision-making and effective monitoring of sector performance against key indicators. In this regard, BANBEIS requires adequate budgetary support to execute planned activities while leveraging its existing institutional capacity, along with necessary resources to conduct methodologically sound surveys that maintain data standards and establish reliable benchmarks for effective sector monitoring.

Private TVET Institute Support and Monitoring Framework: Develop and implement a comprehensive support and monitoring system for private TVET institutes, addressing both quality assurance and capacity development needs. Establish a dedicated desk for academic and administrative monitoring of private institutions across all sectors, with special attention to the 164 private agricultural training institutes. Bring private institutes under joint monitoring with the Directorate of Technical Education (DTE) to ensure quality standards are met. Simultaneously, implement capacity development programs providing technical assistance, training opportunities, and resource materials to enhance educational quality. Develop partnership models enabling private institutions to benefit from public sector expertise and resources, while creating mechanisms for knowledge sharing between public and private providers. This integrated approach will strengthen accountability while providing the targeted support needed to improve educational quality in private institutions which constitute a majority of the TVET system.

These recommendations address the key challenges identified in the ASPR while building on existing strengths across the TVET system. Implementation will require coordinated efforts across all four ministries, with regular monitoring and evaluation to track progress toward a more coherent, effective, and equitable TVET system for Bangladesh.

4.3 Priority Actions for 2025-26

Based on the findings and recommendations of ASPR, the following priority actions are proposed for immediate implementation in 2025.

4.3.1 BANGLADESH BUREAU OF EDUCATIONAL INFORMATION AND STATISTICS (BANBEIS)

1. To align BANBEIS TVE survey and reporting schedules with general education:

Sl.	BANBEIS Routine Activities	Recommendation
1.	Updating questionnaires based on feedback from different stakeholders across all 10 questionnaire types.	To focus on targeting TVET questionnaires effectively.
2.	Improving the precision of TVET questionnaires in software systems, as current targeting focuses primarily on general education.	To exercise extra care and precision when targeting the diversified TVET sector.

3.	Data monitoring for ten types of questionnaire	To focus on education and training data from technical institutions.
4.	Data validation	To validate data at different levels including curriculum, trade, technology, and learning facilities.
5.	Data cleaning	To maintain proper record keeping and provide data for surveys.
6.	Data reporting	To generate annual reporting that creates historical data and shows trends over time.
7.	Reporting for administrative purpose	To implement data-driven decision making (DDDM).
8.	Reporting for quality purpose	To ensure continuous development for quality improvement.

2. Strengthen BANBEISTVET data collection and reporting system and approach:
   i. To request a revised survey budget allocation from the Ministry of Finance to adequately address current and future information requirements.
   ii. To establish a comprehensive TVET MIS at BANBEIS with coordinated participation from all 36 relevant ministries, departments, and organizations.
   iii. To collaborate with UIS, EU, and ILO in developing a TVET National Information Framework (NIF), conducting comprehensive data mapping, establishing a Data Quality Assessment Framework, and formulating implementation strategies that align with both global and national standards.
   iv. To establish a TVET National Data Coordination Committee (NDCC) with dedicated Steering Committee and Technical Committee structures.
   v. To adopt a systematic five-phase implementation approach, including: (1) Pre-survey listing, (2) Questionnaire updating, (3) Software optimization, (4) Data monitoring, and (5) Reporting processes.
   vi. To develop comprehensive reporting and dissemination mechanisms that ensure effective communication of TVET data to stakeholders.

3. Establish TVET Cell in BANBEIS responsible for:
   i. To determine data gaps and harmonize data across BANBEIS, BTEB, DTE, and other relevant agencies.
   ii. To establish a unified data system for effective policy making.
   iii. To collaborate closely with DTE's ASPR cell under the leadership of TMED.
   iv. To help institutionalize Management Information Systems (MIS) across departments of varying sizes, aligning with UNESCO Institute for Statistics (UIS) standards to ensure functionality and interoperability among national agencies (e.g., BANBEIS, BBS).
   v. To ensure ASPR meets national and international goals and targets.

4.3.2 TECHNICAL AND MADRASAH EDUCATION DIVISION

1. Establish ASPR Steering Committee and Technical Committee and support their functioning
2. Update Sector Performance Monitoring Framework (SPMF) 2026-2030
3. Support formulation of ASPR 2025 based on SPMF 2026-2030

4.3.3 MINISTRY OF AGRICULTURE

1. *Strengthen Teaching Capacity and Pedagogical Quality*: This action addresses the lack of pedagogical training that undermines instructional effectiveness and high teacher vacancies that affect education quality and overload existing staff.

2. *Enhance Infrastructure and Practical Training Facilities*: This action addresses severe budget shortfalls that limit procurement and modernization of equipment, training quality that suffers without updated functional labs and tools, and growing student numbers that strain existing infrastructure.

3. *Ensure Financial Sustainability*: This action addresses the downward trend in national funding that may threaten long-term sustainability, dependence on stipends and limited budget flexibility, and zero growth in equipment funding that limits improvements in training quality.

4.3.4 MINISTRY OF EXPATRIATES WELFARE AND OVERSEAS EMPLOYMENT

1. Establish a separate cell with necessary supporting staff for ASPR in BMET.
2. Establish a complete online-based database for collecting related information from training institutes under BMET.
3. Arrange seminars/workshops to create awareness among BMET officers and heads of training institutes regarding ASPR.
4. Establish effective channels between BMET and training institutes for better exchange of information and data regarding training.
5. Form a special cell in the training institutes to assist in the ASPR process.

4.3.5 MINISTRY OF SHIPPING

The actions are to be taken from the Ministry of Shipping regarding TVET:

1. Establish a dedicated TVET cell within the Ministry of Shipping.
2. Provide capacity development of the cell members
3. Establish a database linked with the Marine Academies and Maritime Institutions
4. Increase the teacher-student ratio and the number of trained teachers
5. Reduce male female cadet ratio.

ANNEX 1: KPI DEFINITIONS &CALCULATION FORMULAS

KPI 1: Teacher- Student Ratio (TSR)
Average number of students per teacher in a given school year. It is calculated by dividing the total number of students enrolled by the number of teachers.

$$\text{Teacher-Student Ratio} = \frac{\text{Total Enrolment in TVET}}{\text{Total Teachers in TVET}}$$

KPI 2: Student per Institution
Student per institution refers as a ratio of the total number of students enrolled in TVET institutions and the total number of TVET institutions. It is calculated by dividing the number of students in educational institutions by the total number of institutions.

$$\text{Student per Institution} = \frac{\text{Total Enrolment in TVET}}{\text{Total number of TVET Institutions}}$$

KPI 3: Teacher per Institution
It refers as the ratio of the total number of teachers with the total number of TVET institutions. It is calculated by dividing the total number of teachers by the total number of TVET institutes.

$$\text{Teacher per Institution} = \frac{\text{Total Number of Teachers in TVET Institutes}}{\text{Total Number of TVET Institutes}}$$

KPI 4: % of Teacher Vacancy
Number of teaching posts remains vacant in TVET institutions expressed as a percentage of the total teaching posts approved. It is calculated by dividing the number of teaching posts remaining vacant in TVET institutions by the total number of teaching posts available in the TVET institutions and multiply the result by 100.

$$\text{\% Of Teacher vacancy} = \frac{\text{Total Number of Posts approved - Total Number of working Teachers}}{\text{Total Number of Posts approved}} \times 100$$

KPI 5: Completion Rate at Diploma Level
It refers to the percentage of students in the 1st semester of Diploma level who completed the 8th semester within the required number of years.

$$\text{Completion Rate at Diploma Level} = \frac{\text{Total number of students completed in 8th semester of Diploma Level}}{\text{Total Enrolment in 1st semester of Diploma Level}} \times 100$$

KPI 6: Completion Rate at HSC (Voc) Level
It refers to the percentage of students in the beginning grade/year of HSC (Voc) level who completed Final grade/year within the required number of years.

$$\text{Completion Rate at HSC (Voc) Level} = \frac{\text{Total number of students completed Final grade/year of HSC (Voc) Level}}{\text{Total Enrolment in beginning grade/year of HSC (Voc) Level}} \times 100$$

KPI 7: Completion Rate at SSC (Voc) Level
It refers to the percentage of students in the beginning grade/year of SSC (Voc) level who completed the final grade/year within the required number of years.

$$\text{Completion Rate at SSC (Voc) Level} = \frac{\text{Total number of students completed final grade/year of SSC (Voc) Level}}{\text{Total enrolment in beginning grade/year of SSC (Voc) Level}} \times 100$$

KPI 8: Drop-out Rate at Diploma Level
Refers to the percentage of students at Diploma level who for any reason leave educational institutions and did not come back to finish the grade or level during that school years of that level of education.

Drop-out Rate at Diploma level = 100 − (Promotion Rate + Repetition Rate)

KPI 9: Drop-out Rate at HSC (Voc) Level
Refers to the percentage of students at HSC (Voc) level who for any reason leave educational institutions and did not come back to finish the grade or level during that school year of that level of education.

Drop-out Rate at HSC (Voc) Level = 100 − (Promotion Rate + Repetition Rate)

KPI 10: Drop-out Rate at SSC (Voc) Level
Refers to the percentage of students at SSC (Voc) level of any reason leave educational institutions and did not come back to finish the grade or level during that school years of that level of education.

Drop-out Rate at SSC (Voc) level = 100 − (Promotion Rate + Repetition Rate)

KPI 11: Gender Parity Index in TVET
Ratio of female to male of a given indicator. The GPI measures progress towards gender parity in TVET participation and/or learning opportunities available for women in relation to those available to men. It also reflects the level of women's empowerment in society. It is calculated by dividing the female value of a given indicator by that of the male.

$$\text{GPI} = \frac{\text{Total Female Enrolment}}{\text{Total Male Enrolment}}$$

KPI 12: % of girl's participation in TVET
Girls' participation in TVET expressed as a percentage of the corresponding pupils. It is calculated by dividing the total number of girls enrolled in TVET by Total number of students enrolled in TVET.

$$\% \text{ Of girl's participation in TVET} = \frac{\text{Total number of girls enrolled in TVET}}{\text{Total number of students enrolled in TVET}} \times 100$$

KPI 13: Proportion of youth (15–24 year) enrolled in TVET

TVET Enrolment share refers to the number of students enrolled in TVET regardless of age among the 15–24-year-olds (youth) population.

$$\text{TVET Enrolment Share (\%)} = \frac{\text{Total Enrolment in TVET}}{\text{Total Population of youth (15–24 year)}} \times 100$$

KPI 14: % of students receive stipend

Number of students received stipend in TVET institutes among the total number of students enrolled regardless of age in the given grade/level.

$$\% \text{ Of students receive stipend} = \frac{\text{Students received stipend}}{\text{Total Enrolment}} \times 100$$

KPI 15: % of trained teachers

Number of trained teachers available in the year among the total number of teachers in the TVET institutes.

$$\% \text{ Of trained teachers} = \frac{\text{Number of Trained Teacher}}{\text{Total number of Teachers in the TVET institutes}} \times 100$$

KPI 16: % of Institutes score above 90% in APA

Number of public institutes scored above 90% in APA in the year among the total number of the TVET institutes signed APA.

$$\% \text{ Of Institutes score above 90\% in APA} = \frac{\text{Institutes score above 90\% in APA}}{\text{Total number of TVET institutes signed APA}} \times 100$$

KPI 17: % of institutes admit students over 80% of seat capacity

It expressed as student admit over 80% refers to utilization of seat capacity for specific institutes. It calculated dividing the total number of students admitted in a specific institute by the total number of approved seat allocation in the same institute.

$$\% \text{ of institutes admit students over 80\% of seat capacity} = \frac{\text{Total number of students admit}}{\text{Total number of approved seat allocation}} \times 100 \ (\geq 80)$$

KPI 18: % of TVET institute with TSR below 30

Number of institutes have TSR under 30 in the year among the total number of the TVET institutes.

$$\% \text{ Of TVET institute with TSR below 30} = \frac{\text{TVET institute with TSR below 30}}{} \times 100$$

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$$\overline{\text{Total number TVET institutes}}$$

KPI 19:Enrolment rate of students with special needs

Number of students with special needs enrolled in the year among the total number of the TVET enrolment.

$$\text{Enrolment rate of students with special needs (\%)} = \frac{\text{Number of students with special needs enrolled}}{\text{Total enrolment in TVET}} \times 100$$

KPI 20:% TVET Institutes (Public) having expenditure capacity over 80%

Number of public TVET institutes having expenditure capacity over 80% in the year among the total number of the public TVET institutes.

$$\text{\% TVET Institutes having expenditure over 80\%} = \frac{\text{Public TVET Institutes having expenditure capacity over 80\%}}{\text{Total number Public TVET institutes}} \times 100$$

KPI 21:% of institute signed MoU with industry

It noted how many public institutes have signed MoUs with industry to enhance industry-academia collaboration. It is expressed as the ratio of the number of institutes signed with the industry to the total number of public TVET institutes

$$\text{\% TVET Institutes signed MoU with industry} = \frac{\text{No. of public Institutes signed MoU with industry in a year}}{\text{Total number of TVET institutes}} \times 100$$

KPI 22: % of graduates provided employment support service through job placement cell

Out of the total number of graduates in TVET institutes have received employment support service through Job Placement Cell during the year.

$$\text{\% Of graduates provided employment service through job placement cell} = \frac{\text{Total number of graduates in public TVET institutes have got employment support service}}{\text{Total number graduates in a given year for TVET institutes}} \times 100$$

KPI 23:Allocation for TVET as % of national budget

It refers to the percent of budget allocated for TVET in the national budget.

$$\text{Allocation for TVET as \% of national budget} = \frac{\text{Budget Allocation for TVET}}{\text{National Budget (BDT)}} \times 100$$

KPI 24: % Annual Increase in DTE Budget for Workshop Equipment

% change in DTE budget allocation for workshop equipment changes in the current fiscal year comparing to previous year.

$$\text{\% Annual Increase in DTE Budget for Workshop Equipment} = \frac{(\text{DTE Budget for Workshop Equipment Current FY} - \text{DTE Budget for Workshop Equipment FY-1})}{\text{DTE Budget for Workshop Equipment FY-1}} \times 100$$

ANNEX 2: SECTOR PERFORMANCE MONITORING FRAMEWORK

Note: Where appropriate, indicators are disaggregated by Gender, Level/Curriculum, and Public/Private

Results Level	Result Areas	Thematic Objectives	No.	SPFM Indicators	KPI	Ref
Impact	*Economy & Employment*	*Macro-Economy Growth and Stability*	1.1.1.1	GDP Growth (%)		
			1.1.1.2	Remittance as a Percentage of GDP		
			1.1.1.3	Contribution of Labour force in Remittance in percentage		
		Employment & Unemployment	1.1.2.1	Employment rate		
			1.1.2.2	Unemployment rate		
			1.1.2.3	Share of unskilled workers in the labour force employment in %		
			1.1.2.4	Overseas employment/labour force in Number		
			1.1.2.5	Overseas employment in percentage		
		Youth Population	1.1.3.1	Youth population (Age 15-24)		
			1.1.3.2	% of youth population		
			1.1.3.3	Unemployment rate of youth in percentage (not in employment, education or training)		
Outcomes	*Quality & Relevance*	*Teacher Development & Deployment*	2.1.1.1	Teacher-Student ratio TSR	KPI 1	
			2.1.1.2	Student per institutions	KPI 2	
			2.1.1.3	Teacher per institutions	KPI 3	
			2.1.1.4	% of Qualified Professional Teachers in TVET		
			2.1.1.5	% of teacher vacancy	KPI 4	
			2.1.1.6	% of NTVQF Skills Certified teachers		
			2.1.1.7	Teacher attrition rate in TVET (Public/DTE)		SDG
		Qualification & Certification	2.1.2.1	% increase of BTEB affiliated institutes (Public/Private)		
			2.1.2.2	% of TVET graduates in NTVQF (Public/Private)		
			2.1.2.3	% of RTO producing NTVQF certified graduates (functional RTO)		
			2.1.2.4	% of Institutes conducting dual certification (Public/Private)		
			2.1.2.5	% of certification through RPL		
		TVET Graduate & Employment	2.1.3.1	Completion rate at Diploma Level	KPI 5	
			2.1.3.2	Completion rate at HSC (Voc) Level	KPI 6	
			2.1.3.3	Completion rate at SSC (Voc) Level	KPI 7	
			2.1.3.4	Dropout rate in Diploma Level	KPI 8	
			2.1.3.5	Dropout rate in HSC (Voc) Level	KPI 9	MBF
			2.1.3.6	Dropout rate in SSC (Voc) Level	KPI 10	MBF

Results Level	Result Areas	Thematic Objectives	No.	SPFM Indicators	KPI	Ref
			2.1.3.7	% of employment of TVET graduates within 6 months (Public/Private)		
			2.1.3.8	Rate of income increase for TVET graduates		
			2.1.3.9	Under-employment Rate of TVET graduates		
		TVET Market Responsiveness	2.1.4.1	% of Graduates employed through Employment Support System (ESS) by Institutes (Public)		
			2.1.4.2	No. of TVET apprentices (formal)		
			2.1.4.3	No. of industry providing formal apprenticeship		
			2.1.4.4	% of market-responsive curriculums		
		TVET Reputation & Image	2.1.5.1	% of Stakeholders with Positive Perception of TVET		
			2.1.5.2	Satisfaction of TVET employers and graduates		
	Access, Participation & Affordability	Access & Equity	2.2.1.1	Proportion of 15-24 year-olds enrolled in vocational education, both sexes (%)		SDG
			2.2.1.2	Proportion of 15-24 year-olds enrolled in vocational education, female (%)		SDG
			2.2.1.3	Proportion of 15-24 year-olds enrolled in vocational education, male (%)		SDG
			2.2.1.4	Pre-Voc Student enrolment share at JSC level (6th-8th grade)		
			2.2.1.5	TVET enrolment share at Secondary Education level (9-12th grade)		
			2.2.1.6	Gender Parity Index in TVET enrolment	KPI 11	
			2.2.1.7	Ratio of male-female students at Polytechnic level		MBF
			2.2.1.8	Ratio of male-female students at HSC (Voc) level (11th-12th grade)		MBF
			2.2.1.9	Ratio of male-female students at SSC (Voc) level (9th-10th grade)		MBF
			2.2.1.10	% of girls Participation in TVET	KPI 12	
			2.2.1.1	Proportion of youth (15-24 year) enrolled in TVET	KPI 13	SDG
		Affordability	2.2.2.1	No. of students/trainee receive stipend /incentives		
			2.2.2.2	% of students receive stipend	KPI 14	BESP
			2.2.2.3	% of Poor Students in Secondary Vocational		
			2.2.2.4	Estimated out-of-pocket		

Results Level	Result Areas	Thematic Objectives	No.	SPFM Indicators	KPI	Ref
				expenditures for TVET students		
Sector Capacity	**TVET System Capacity (Central Level)**	**Quality & Efficiency**	3.1.1.1	% of Pedagogical certified teachers (Public)		
			3.1.1.2	No. of teacher/instructor received training on pedagogy		
			3.1.1.3	No. of industry worker certified as assessors		
			3.1.1.4	No. of assessors (academia) certified		
			3.1.1.5	No. of certified curriculum developer		
			3.1.1.6	No. of standard developed /syllabus reviewed		
			3.1.1.7	No. of Workforce forecasting Study conducted by BTEB		
			3.1.1.8	No. of Need Analysis study conducted per year for curriculum development (Public)		
			3.1.1.9	TVET Teachers Qualification Framework Established		
		Access & Equity	3.1.2.1	No. of TVET institutes (Public/Private)		
			3.1.2.2	No. of Private TVET institutes		
			3.1.2.3	TVET Enrolment Total (Public/Private)		SDG
			3.1.2.5	TVET Enrolment by People with Disability (PWD)		
			3.1.2.6	TVET Enrolment by Ethnic Minority		
		Management and Coordination	3.1.3.1	% of trained teachers	KPI 15	
			3.1.3.2	No. of teaching and non-teaching staff recruited		
			3.1.3.3	No. of industries running training unit		
			3.1.3.4	% of Institutes monitored every year (Public)		
			3.1.3.5	% of Institutes above 90% score in APA	KPI 16	
			3.1.3.6	No. of TVET Research Conducted by Institutes (Public)		
			3.1.3.7	TVET Teachers Qualification Framework Established		
			3.1.3.9	No. of SDYM&ICT meetings		
	TVET Institute Capacity (Decentralised Level)	**Quality & Efficiency**	3.2.1.1	% of TVET institute with TSR below 30	KPI 18	BESP
			3.2.1.2	% of TVET institute having physical infrastructure as per BTEB regulations		
			3.2.1.3	% of TVET institute having equipment as per BTEB regulations		
			3.2.1.4	% of TVET institution having required No. of teachers/instructor		
			3.2.1.5	% of TVET institutes with workshop equipment over 10 years old		

Results Level	Result Areas	Thematic Objectives	No.	SPFM Indicators	KPI	Ref
			3.2.1.6	% of TVET institutes with Graduation rate over 80% (Public)		
			3.2.1.8	% TVET Institutes with Co-Curricular Activities (Public)		
		Access & Equity	3.2.2.1	% of Upazilas have public TVET Institutes		
			3.2.2.2	% of districts have Polytechnics		
			3.2.2.3	% of TVET Institutes less than 20% Vacant Seat		
			3.2.2.4	% of public institutes with at least 30% female enrolment		
			3.2.2.5	% of institutes admit students above 80% of seat capacity	KPI 17	
			3.2.2.6	% of Private institutions utilizing its seat capacity up to 80%		
			3.2.2.7	Enrolment rate of students with special needs	KPI 19	
			3.2.2.8	% of Institute Having Ramp Access		
		Management and Coordination	3.2.3.1	% of Institute Preparing Annual Plan		BANBEIS
			3.2.3.2	% TVET Institutes with having expenditure capacity above 80%	KPI 20	
			3.2.3.3	% TVET Institutes Preparing Annual Plan		BANBEIS
			3.2.3.4	% TVET Institutes Having PTA		BANBEIS
			3.2.3.5	No of Co-ordination meeting with Industry held (Public/Private)		
			3.2.3.6	No of Co-ordination meeting with Industry held in Polytechnic (Public)		
			3.2.3.7	% of implementation of minutes of Co-ordination meeting with industry		
			3.2.3.8	% of institute signed MoU with industry	KPI 21	
			3.2.3.9	% of TVET Institutes implement decentralised management (Public)		BESP
			3.2.3.9	% of Personnel in TVET Institutes receives management training (Public)		BESP
			3.2.3.10	% of Graduates provided employment support service through job placement cell	KPI 22	
	TVET Financing	Budget Allocation	3.3.1.1	Total Allocation for TVET as % of National Budget	KPI 23	
			3.3.1.2	Allocation for TVET as % of education budget (Public/DTE)		
			3.3.1.3	% Annual Increase in DTE Budget for Workshop Equipment	KPI 24	
			3.3.1.4	Allocation of budget for research (Public/DTE)		
			3.3.1.5	DP commitment as % of TVET		

Results Level	Result Areas	Thematic Objectives	No.	SPFM Indicators	KPI	Ref
				budget (Public/DTE)		
		Budget Expenditure	3.3.2.1	TVET spending as a percentage of the national budget		
			3.3.2.2	Expenditure rate for TVET Budget (Public/DTE)		
			3.3.2.3	TVET budget spending by DP funded projects		
			3.3.2.4	% of budget spend for teachers training		
			3.3.2.5	% of budget spend for stipend/incentives		
			3.3.2.6	% of budget spend for infrastructure development		

ANNEX 3: GLOSSARY AND DEFINITION

TVET (Technical and Vocational Education and Training): A type of education and training that provides learners with skills and knowledge required for specific trades, crafts, and professions.

Skills Development: The process of acquiring and improving competencies, knowledge, and skills for employment, personal development, and socio-economic participation.

Annual Sector Performance Report: A document that assesses the progress and outcomes of the TVET sector over a specific year.

Accreditation: The formal recognition and approval of TVET institutions and programs by relevant authorities.

Andragogy: The theory and practice of teaching adults, which is relevant in TVET for mature learners.

Apprenticeship: A structured training program that combines on-the-job learning with classroom instruction, often leading to a recognized qualification.

Assessment and Certification: The process of evaluating the performance of TVET learners and issuing credentials or certificates to those who meet the established standards.

Assessment Tool: The specific instrument or method used to assess TVET learners, such as written exams, practical tests, or performance evaluations.

Budget Allocation: The allocation of financial resources to support TVET programs, infrastructure, and services.

Career Guidance and Counseling: Services that help TVET learners make informed choices about their educational and career paths.

Certification Body: An organization responsible for issuing TVET certificates or qualifications based on established standards.

Competency-Based Training: An approach to TVET that focuses on the acquisition of specific skills and competencies relevant to industry needs.

Credit Hours: A measure of the amount of time a TVET learner spends in instructional activities, often used for academic recognition and transferability.

Credit Transfer: The process of recognizing and accepting TVET qualifications and credits earned in one program or institution for use in another.

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Dropout Rate: The percentage of TVET learners who leave their programs before completion.

Dual Certification: The issuance of both an academic certificate and an industry-recognized certification upon completion of a TVET program.

E-Learning: The use of electronic technologies, such as the internet and digital tools, for delivering TVET content and training.

Employability: The ability of TVET graduates to find and maintain employment, including their skills, adaptability, and attitude.

Formative Assessment: Ongoing assessments conducted during the learning process to provide feedback and guide instruction.

Gender Mainstreaming: The integration of gender considerations into TVET policies, programs, and practices to ensure equal opportunities for all genders.

ICT (Information and Communication Technology): Technologies used for the storage, retrieval, and communication of information, including computers, software, and the internet.

Industry Partnership: Collaboration between TVET institutions and industries to align training programs with industry needs.

In-Service Training: On-going training and development for TVET teachers who are already employed to improve their teaching skills and stay updated with industry and technological changes.

Labor Market Demand: The current and future needs of employers for specific skills and competencies in the workforce.

Learning Outcomes: Specific and measurable statements that describe what learners should be able to do after completing a TVET program.

Lifelong Learning: The concept of continuous education and skill development throughout one's life to adapt to changing needs and opportunities.

Monitoring and Evaluation: The ongoing process of assessing and measuring the performance and impact of TVET initiatives.

National Qualifications Framework (NQF): A system that establishes and organizes TVET qualifications and certifications within a country, ensuring consistency and comparability.

Pedagogy: The science and art of teaching, encompassing instructional methods, strategies, and techniques used by TVET teachers.

Pre-Service Training: Training programs for individuals who are preparing to become TVET teachers but have not yet entered the workforce.

Professional Development: Activities and programs designed to enhance the skills, knowledge, and effectiveness of TVET teachers.

Public-Private Partnership (PPP): Collaboration between government entities and private sector organizations to enhance TVET delivery and outcomes.

Quality Assurance: The systematic process of ensuring that the quality of TVET programs and services meets predefined standards and benchmarks.

Recognition of Prior Learning (RPL): The process of assessing and recognizing the knowledge and skills acquired through non-formal or informal means for credit towards TVET qualifications.

Regional Disparities: Differences in access to and quality of TVET services across different geographical areas within a country or region.

Retention Rate: The percentage of TVET learners who remain enrolled and complete their programs successfully.

Skills Gap: The disparity between the skills possessed by TVET graduates and the skills demanded by the labor market.

Soft Skills: Non-technical skills, including communication, teamwork, problem-solving, and leadership, that are essential for success in the workplace.

Stakeholder: An individual or organization with an interest or involvement in the TVET sector, such as government agencies, employers, educators, and students.

Summative Assessment: Final assessments conducted at the end of a TVET program to determine whether learners have achieved the required competencies.

Sustainability: The ability of the TVET sector to maintain its operations and impact over the long term.

Teacher Certification: Formal recognition of a teacher's qualifications and competence to teach specific TVET subjects or skills.

Teacher Qualification: The educational and professional requirements necessary for TVET teachers, including degrees, certifications, and licenses.

Teacher Training: Formal education and preparation programs to equip individuals with the skills and knowledge needed to become TVET teachers.

TVET Assessment: The process of evaluating and measuring the knowledge and skills of TVET learners through tests, projects, and practical evaluations.

TVET Curriculum: The set of educational materials, learning objectives, and assessments used in TVET programs.

TVET Pathways: Different routes and options for TVET learners to progress from entry-level skills to advanced qualifications.

TVET Policy Framework: A set of guidelines and principles that guide the development and implementation of TVET programs and initiatives.

TVET Research: Studies and investigations focused on improving TVET teaching methods, curriculum, and outcomes.

Work-Based Learning: A form of TVET that takes place in real workplace settings, providing learners with practical experience.

ANNEX 4: TMED APPROVAL OFFICE ORDER

ANNEX 5: MOA APPROVAL OFFICE ORDER

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
জনশক্তি কর্মসংস্থান ও প্রশিক্ষণ ব্যুরো
প্রবাসী কল্যাণ ও বৈদেশিক কর্মসংস্থান মন্ত্রণালয়
প্রশিক্ষণ পরিচালনা শাখা
৮৯/২ কাকরাইল, ঢাকা-১০০০
www.bmet.gov.bd

স্মারক নম্বর-৪৯.০১.০০০০.৩৪০.২৪.১০৪.২৫.২৮-২

তারিখ: ২৪ মে ২০২৫ খ্রি.।

বিষয়: EU-funded" Human Capital Development Programme for Bangladesh 2021 শীর্ষক বাজেট সাপোর্ট প্রোগ্রামের আওতায় TVET Anual Sector Performance Report ASPR-2024 প্রণয়নের নিমিত্তে তথ্য প্রেরণ।

সূত্র: প্রশাসনিক মন্ত্রণালয়ের পত্র নং-৪৯.০০.০০০০.০১৫.২৯.০০২.২০.৩৭, তারিখ: ১৪.জানুয়ারি ২০২৫।

উপর্যুক্ত বিষয় ও সূত্রোক্ত পত্রের প্রেক্ষিতে জানানো যাচ্ছে যে, কারিগরি ও মাদ্রাসা শিক্ষা বিভাগ এর আওতায় কারিগরি শিক্ষা অধিদপ্তর কর্তৃক বাস্তবায়নাধীন EU-funded" Human Capital Development Programme for Bangladesh 2021 (HCDP-21)" শীর্ষক বাজেট সাপোর্ট প্রোগ্রামের আওতায় TVET Anual Sector Performance Report ASPR-2024 প্রণয়নের নিমিত্তে বিএমইটির অধীনে পরিচালিত কার্যক্রমের তথ্য পরবর্তী প্রয়োজনী ব্যবস্থা গ্রহণের জন্য এতদসাথে প্রেরণ করা হলো।

সংযুক্তি: বর্ণনামোতাবেক।
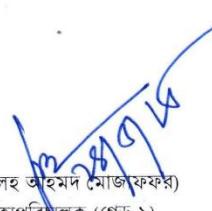
(সালেহ আহমদ মোজাফফর)
মহাপরিচালক (গ্রেড-১)
ফোন: ৪৯৩৪৯৯২৫ (অফিস)
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সিনিয়র সচিব
প্রবাসী কল্যাণ ও বৈদেশিক কর্মসংস্থান মন্ত্রণালয়
প্রবাসী কল্যাণ ভবন, ৭১-৭২ ইস্কাটন গার্ডেন, রমনা, ঢাকা।

দৃষ্টি আকর্ষণ: যুগ্মসচিব, প্রশিক্ষণ অনুবিভাগ।

ANNEX 7: MoS APPROVAL LETTER

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
নৌপরিবহন মন্ত্রণালয়
নৌশিক্ষা ও প্রশিক্ষণ শাখা
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স্মারক নম্বর- ১৮.০০.০০০০.০১৭.২৫.০৭৬.২৩- ৩০৬

তারিখ: ০৫ জ্যৈষ্ঠ ১৪৩২
১৯ মে ২০২৫

বিষয়: Technical & Vocational Education and Training (TVET) Annual Sector Performance Report (ASPR-2024) প্রসঙ্গে।

উপর্যুক্ত বিষয় ও সূত্রোক্ত পত্রের পরিপ্রেক্ষিতে নৌপরিবহন মন্ত্রণালয়ের আওতাধীন ০৫ টি মেরিন একাডেমি ও ০২ টি ন্যাশনাল মেরিটাইম ইন্সটিটিউট সম্পর্কিত Technical & Vocational Education and Training (TVET) Annual Sector Performance Report (ASPR-2024) পরবর্তী প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য নির্দেশক্রমে এতদৃসঙ্গে প্রেরণ করা হলো।

সংযুক্তি: বর্ণনামতে।

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মহাপরিচালক
কারিগরি শিক্ষা অধিদপ্তর
এফ-৪/বি, আগারগাঁও প্রশাসনিক এলাকা, ঢাকা-১২০৭।

দৃষ্টি আকর্ষণ: পরিচালক (পরিকল্পনা ও উন্নয়ন) ও টিমলীডার, এইচ সিডিপি-২১ শীর্ষক কর্মসূচী ইউরোপ ইউনিয়ন, কারিগরি শিক্ষা অধিদপ্তর

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