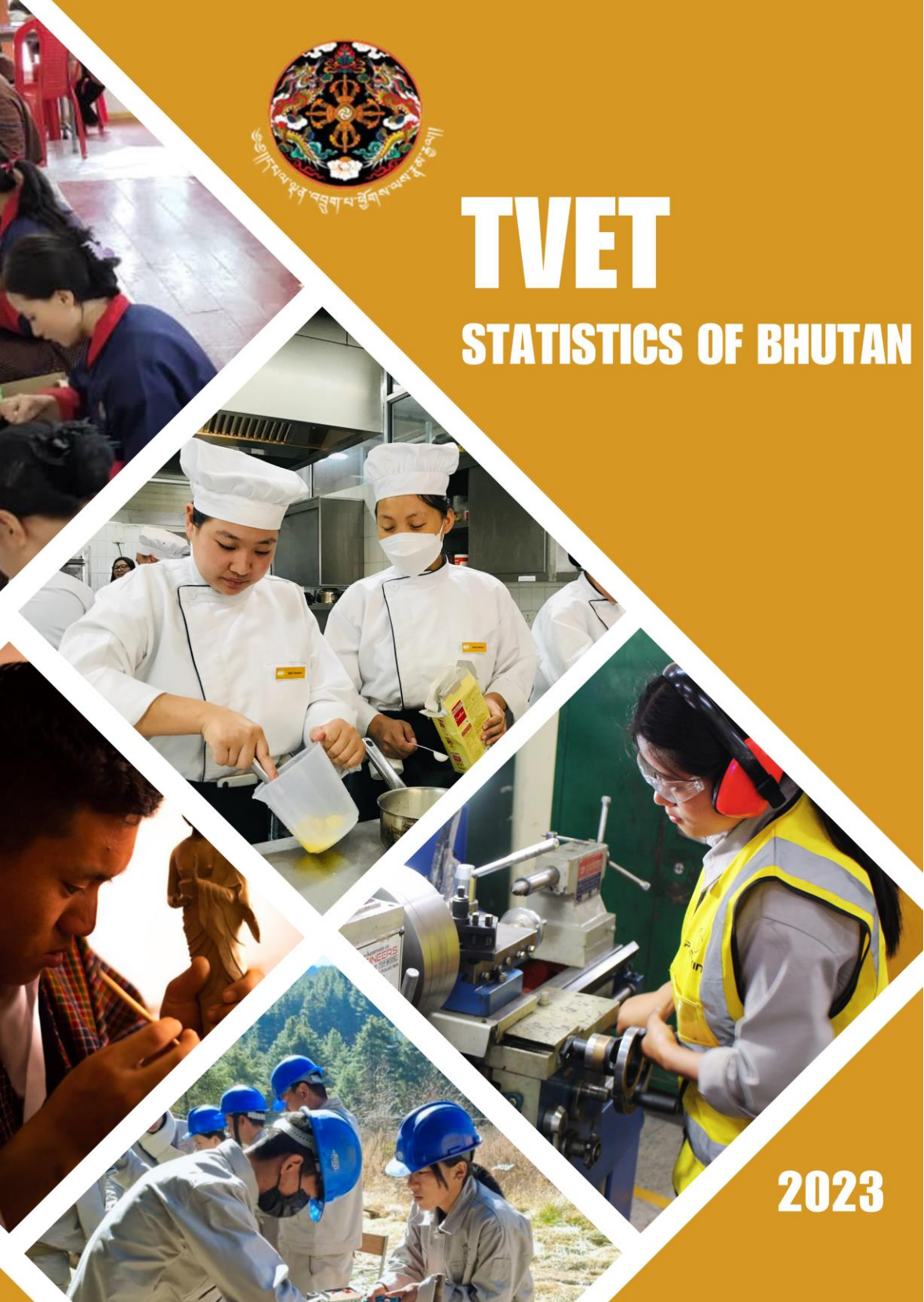




TVET

STATISTICS OF BHUTAN



2023



"We must realize that knowledge and skills if not reviewed, will soon become obsolete. We must inculcate in us a culture of lifelong learning... We need to be prepared for the future so that every one of us is equipped with the skills, competencies and experience to succeed and compete in the world. We must give utmost priority to skill, up-skill, and re-skill our people to make them world-ready."

His Majesty's National Day address 2021





TVET

Statistics of Bhutan

2023

Workforce Planning and Information Division
Department of Workforce Planning and Skills Development
Ministry of Education and Skills Development

education.gov.bt/dwpsd
<https://www.blmis.gov.bt/tvet>

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Acronym

BQPCA	Bhutan Qualifications & Professionals Certification Authority
BQF	Bhutan Qualifications Framework
CBT	Competency Based Training
CCD	Critical Capability Development
CST	Critical Skills Training
CZC	College of Zorig Chusum
DWPSD	Department of Workforce Planning and Skills Development
DOL	Department of Labour
DTP	Dual Training Program
ETCPF	Education and Training Consultancy and Placement Firms
FY	Financial Year
FYP	Five-Year Plan
HE	Higher Education
HRD	Human Resources Development
IZC	Institute of Zorig Chusum
JWPTI	Jigme Wangchuck Power Training Institute
LFS	Labour Force Survey
MIS	Management Information System
MoESD	Ministry of Education and Skills Development
NC	National Certificate
NCS	National Competency Standards
ND	National Diploma
NIZC	National Institute for Zorig Chusum
Nu	Ngultrum
OJT	On-the-Job-Training
QMS	Quality Management System
RDTC	Rural Development Training Centre
RITH	Royal Institute of Tourism and Hospitality
RGoB:	Royal Government of Bhutan
RPL	Recognition of Prior Learning
SDP	Skills Development Program
SSDP	Special Skills Development Program
STEP-UP	Skills Training and Education Up-gradation Project
STP	Skills Training Program
TOT	Training of Trainers
TTI	Technical Training Institute
TTI-C	Technical Training Institute -Chumey
TTI-K	Technical Training Institute -Khuruthang
TTI-R	Technical Training Institute -Rangjung
TTI-S	Technical Training Institute -Samthang
TTI-T	Technical Training Institute -Thimphu
TTTRC	Technical Trainers Training and Resources Center
TVET	Technical and Vocational Education and Training
TVET QC	TVET Quality Council
VSDP	Village Skills Development Program

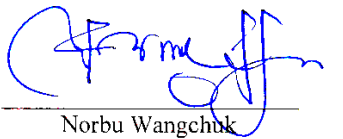
FOREWORD

It gives me great pleasure to present the TVET Statistics of Bhutan for the year 2023. Technical and Vocational Education and Training (TVET) is an important pillar of Bhutan's socio-economic system, and it plays a crucial role in providing skills and competencies to our youth to prepare them for the world of work and for the workforce to engage meaningfully and productively in different economic activities.

The TVET Statistics of Bhutan 2023 report provides a comprehensive overview of the TVET sector in Bhutan, including key data on access, quality and relevance of TVET programs. The report highlights data and intelligence of the different TVET programs and interventions made in the year 2023. This report also provides results from the TVET tracer and employer survey data extracted from the TVET-MIS system.

I would like to extend my sincere gratitude to the Department of Workforce Planning and Skills Development and all the stakeholders involved in the TVET sector for their unwavering support and commitment towards promoting TVET in Bhutan. I hope that this report will serve as a valuable resource for policymakers, researchers, and other stakeholders to understand the TVET landscape in Bhutan and make informed decisions to further improve the sector.

I encourage everyone to read this report and join us in our efforts to build a skilled and productive workforce in Bhutan.



Norbu Wangchuk
Director

Department of Workforce Planning and Skills Development

INTRODUCTION

TVET Statistics 2023

The collection and analysis of data on Technical and Vocational Education and Training (TVET) is a critical component of the ongoing TVET reform process led by the Department of Workforce Planning and Skills Development (DWPSD). The Annual TVET statistical reporting process was initiated in the year 2020 as a means of improving data management and governance within the TVET sector and to promote a data-centric approach while implementing the TVET reform initiatives. The development of TVET statistical reports signifies a growing recognition of the importance of data-driven decision-making in the field of TVET, demonstrating a commitment to enhance the quality and relevance of the TVET system in the country.

The TVET Management Information System (TVET-MIS) developed during the 12th FYP period has addressed the need for reliable and comprehensive data on TVET. The TVET-MIS collects, stores, analyses, and disseminates data and information on various aspects of TVET within the country. The TVET-MIS also provides accurate and timely data on TVET program performance and outcomes, allowing key players within the TVET system, government policymakers, administrators, and other TVET stakeholders to monitor progress and evaluate the effectiveness of different interventions. A well-functioning TVET-MIS can help promote transparency and accountability in the TVET system by providing stakeholders with access to accurate and reliable data. Furthermore, the TVET-MIS can play an important role in improving the quality and relevance of TVET programs and ensuring that they are effective in creating an impact.

The TVET-MIS is one of the key sources of data reflected in this report. A TVET Tracer survey targeting the 2022 graduate cohort from all institutes under the direct administration of the DWPSD, commenced in July 2023 through the newly introduced TVET-MIS Tracer system. The findings of this survey, particularly in the quality and relevance domain, are encapsulated within this report.

Purpose of the Report

The purpose of the TVET statistical report is to provide data and insights essential for TVET planning, as well as for fostering effective management and coordination practices, facilitating sound investment decisions, and enabling effective monitoring and evaluation of TVET programs and initiatives. Serving as a repository of comprehensive, current, and practical TVET statistics, the report caters to the needs of key stakeholders within the TVET system, including government policymakers, administrators, and other stakeholders, facilitating their efforts to track progress and assess the impact of various interventions. The report reflects a growing recognition of the importance of data-driven decision-making in the field of TVET and a commitment to enhance the quality and relevance of the TVET system in the country.

This report provides TVET data and information for all programs and activities implemented in the year 2023 by the department and the institutes under its direct administration.

Report Structure

The report has been kept consistent with the TVET Statistics of Bhutan, Issue 2022. This report includes TVET statistics organized into five sections: 1. TVET Context indicators, 2. TVET Access Indicators, 3. TVET Quality Indicators, 4. TVET Relevance Indicators, and 5. TVET Governance Indicators.

The **TVET Context Indicators** comprise data on labour market indicators primarily from the 2023 (Quarter 3) Labour Force Survey, with a specific focus on individuals with TVET qualifications. It also includes information on the youth population and projections of Class XII graduates, and information on the import of foreign workers in the country.

The **TVET Access Indicators** provides statistics on the characteristics of TVET institutes and programs, as well as access to and participation in TVET institutes under the direct administration of DWPSD. To ensure gender inclusion, there is a focus on sex-disaggregated enrolment statistics. Furthermore, with the completion of the TVET-MIS enhancement project, disability-disaggregated information is also available. This section also

covers access to and participation in other skills development programs provided through Skills Development Program (SDP), Critical Skills Training (CST) program, and Community Skills Development programs, such as Village Skills Development Program (VSDP) and Special Skills Development Program (SSDP). By providing data on access and participation in these programs, the TVET Access Indicators help to ensure that policymakers and stakeholders have a comprehensive understanding of the skills development landscape in the country. This can help identify areas where additional investment may be necessary and ensure that skills development programs meet the needs of the economy and the labour market.

The **TVET Quality Indicators** provide statistics on registered trainers, QMS, and results of the tracer survey conducted for the 2022 graduate cohort from DWPSD administered institutes. Additionally, it includes profiling of training staff and statistics from other programs relevant to improving TVET quality. By providing this information, the TVET Quality Indicators help policymakers and stakeholders understand the capacity and qualifications of TVET personnel and the effectiveness of quality assurance mechanisms. This data can inform decisions related to the recruitment and training of trainers and assessors, the accreditation of TVET institutes, and the development of certification standards. Ultimately, the TVET Quality Indicators aim to ensure that the TVET system produces graduates with the skills and knowledge required by the economy and the labour market.

The **TVET Relevance Indicators** provide detailed information on the tracer outcomes of the survey conducted for the 2022 graduate cohort from DWPSD-administered institutes. This section also includes the employer feedback on TVET graduates conducted in November-December 2023. The survey aims to assess the relevance of TVET programs by tracking the employment status and earnings of graduates. By providing data on graduates' employment outcomes and employers' feedback, the TVET Relevance Indicators help to evaluate the alignment between TVET programs and labour market needs. Policymakers and stakeholders can use this information to identify areas where program curricula may need to be revised or where new programs may need to be developed to meet changing labour market demands. Ultimately, the TVET Relevance Indicators aim to ensure that TVET programs prepare graduates with the skills and knowledge needed to succeed in the workforce.

The **TVET Governance Indicators** are concerned with TVET governance, management, and financing. Governance indicators should ideally indicate progress in implementing TVET policies, planning, coordination, and

outcomes, while financing indicators should provide a clear picture of financial and other resources available for TVET, as well as the per-capita cost of TVET courses. Unfortunately, the data needed to create all of these indicators was not readily available. As a result, the section's scope was limited to management staff profiling and reporting of some information on training and TVET financing.

Sources of data

The key sources of data for the development of this report are:

1. TVET-MIS,
2. BLMIS,
3. Administrative data from the DWPSD,
4. Administrative data from the DWPSD administered institutes,
5. Administrative data from the TVET Quality Council (TVET-QC),
6. Labour Force Survey data 2023 (Quarter 3),
7. HR data from the HR Division, and
8. Budget data from the Finance Section.

Limitations of the Report

The primary objective of this report is to furnish data and statistical insights concerning TVET plans, programs, and interventions throughout the duration of 2023. It endeavours to offer a thorough examination of the existing landscape of TVET, highlighting the advancements made toward pivotal objectives and goals. Notably, the report refrains from issuing explicit recommendations regarding future actions.

Instead, the responsibility lies with the pertinent TVET implementing bodies and stakeholders to derive conclusions from the report's findings, utilizing this information to inform their decision-making processes. The report serves as a valuable resource, providing nuanced perspectives on the state of TVET and the efficacy of ongoing initiatives. These insights are instrumental in guiding future planning endeavours and optimizing resource allocation strategies. By presenting precise and dependable TVET data, this report plays a vital role in supporting evidence-based decision-making, thus ensuring that TVET programs remain adept, streamlined, and attuned to the evolving requirements of both learners and the labour market.

Some of the key limitations of the report are:

- The TVET-MIS is the key source of data for TVET enrolment, tracer outcomes, employer feedback and institute profiling. The MIS provides real time data on a day-to-day basis based on the data recorded by the different training providers on the MIS. The data provided in this report reflects the data extracted in the first quarter of 2024. However, it is important to note that the data may vary when extracted at a different time period considering the new data added and deleted on and from the MIS.
- The report provides comprehensive data pertaining to the ten institutes under the direct administration of DWPSD. However, comparable data for other public and private institutes is notably absent. Despite the implementation of the TVET-MIS, a considerable number of registered training providers do not fully utilize the system for the unaccredited training programs. Consequently, complete data on unaccredited courses implemented by private institutes is not available.
- As reported in the TVET Statistics of Bhutan 2022, the data for TVET studies facilitated by the ETCPFs abroad could not be managed due to the transition in the implementing agencies and the revision of the ETCPF regulation. However, the data on individuals availing TVET studies outside the country will be reported in the subsequent reports.
- The TVET context section relies on the national Labour Force Survey (LFS) data. It's important to note that the annual LFS is now conducted on a quarterly basis. This report provides a comparison between the annual LFS for 2022 and quarterly LFS for 2023. The quarterly LFS indicates a higher proportion of data for those with TVET qualification which could be due to the department's intervention during the LFS survey design phase.

TVET-MIS System

www.blmis.gov.bt/tvet

As part of the Bhutan Labour Market Information System (BLMIS), the TVET-MIS has been in place since 2021 with support from ADB and the World Bank. The system is designed to collect, store, and disseminate data and information about various aspects of TVET in the country. The TVET-MIS seeks to provide accurate and timely data on TVET program performance and outcomes to key players within the TVET system, including government policymakers, administrators, and other TVET stakeholders. A well-functioning TVET-MIS can help promote transparency and accountability in the TVET system by providing stakeholders with access to accurate and reliable data. This can play an important role in improving the quality and relevance of TVET programs and ensuring that they are effective in creating an impact.

The development of TVET-MIS is an important step towards improving the TVET system in a country. It can provide decision-makers with the data they need to make informed decisions about TVET policies and programs. TVET-MIS can also help to identify gaps in the system and areas that need improvement. By collecting data on TVET program performance and outcomes, TVET-MIS can help to ensure that TVET programs are meeting the needs of the labour market and are relevant to the needs of the economy.

TVET-MIS can also play an important role in improving the quality and relevance of TVET programs. By collecting data on TVET program performance and outcomes, TVET-MIS can help identify areas where programs are not meeting their objectives or are not producing the desired outcomes. This information can then be used to make adjustments to TVET programs and ensure that they are effective in creating an impact. The development of TVET-MIS is a crucial step in promoting evidence-based decision-making in the TVET sector and in ensuring that TVET programs are meeting the needs of the economy and the labour market. As such, the data and information on the TVET-MIS were crucial for the development of the TVET Statistics 2023.

The TVET-MIS enhancement (Phase I) work was completed in 2023 with financial support from the World Bank. The enhanced system has single-intake window features wherein trainees can now register on the MIS to avail any TVET training. TVET tracer and employer survey features are also added on the MIS. Three different TVET tracers are automatically conducted from

the MIS upon completion of the course. Further enhancement work on the MIS will be implemented in the subsequent year.

While the system has been put in place to provide accurate and real-time data and information, there are still issues. Some of the issues are related to data inconsistency, incorrect entries, and missing information, which impacts the quality of the data. The data generated from the system has been cleaned to generate the information that has been used for this report.

Background on DWPSD

Skills and craftsmanship have been the foundation of Bhutan's socio-economic development for many centuries. After the arrival of Zhabdrung Ngawang Namgyal in Bhutan, traditional skills development was given more impetus and importance, and provided through on-the-job training and apprenticeships. All the traditional arts and crafts were formalized through the institute of Zorig Chusum and flourished during that time. The dzongs, monasteries, and many artefacts seen today are manifestations of the strong skills and workmanship handed down from generation to generation in the country.

However, with the advent of modernization, the importance of contemporary TVET in the country was realized much earlier. With the commencement of the first Five-Year planning process in the 1960s, the first TVET institute, Kharbandi Technical School, was established in 1964, which was later renamed as the Royal Technical Institute (RTI) and to the College of Science and Technology (CST). The main objective of the institute was to train Bhutanese youth at the certificate level in four trades: automobile, general mechanic, building construction, and electrical engineering. A decade later, in 1974, the Royal Bhutan Polytechnic (RBP) was established in Dewathang, Samdrup Jongkhar with the aim of higher-level technical training in trades such as civil engineering, electrical engineering, and surveying. Until the late 1990s, TVET was managed by a unit/cell under the Ministry of Social Services (later the Ministry of Education).

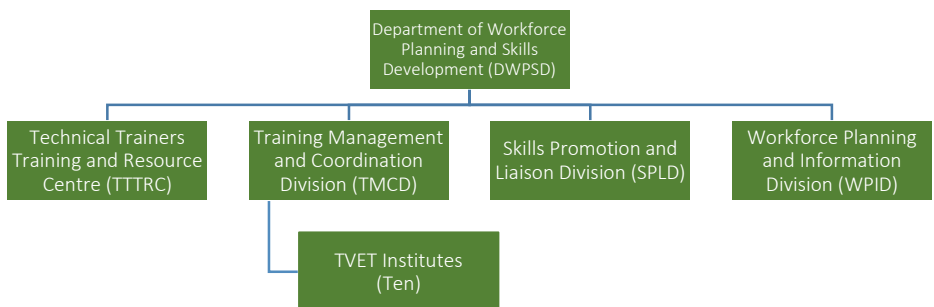
In May 1999, the TVET function was delinked from the Ministry of Education, and the National Technical Training Authority (NTTA) was established with a mandate to plan, coordinate, and implement TVET plans and programs, and to assume the regulatory role to ensure quality in TVET. Under NTTA, the plans for the construction of the existing six TTIs commenced under the

ADB-funded Basic Skills Development Project. In 2003, the erstwhile Ministry of Labour and Human Resources (MoLHR) was established with the objective of tackling the issue of growing unemployment among youth. As such, the NTTA was subsumed under the new Ministry, and the roles and functions of the NTTA were bifurcated into two departments - the Department of Human Resources (DHR) and the Bhutan Vocational Qualification Authority (BVQA), later renamed the Department of Occupational Standards (DOS).

In April 2017, understanding the larger role of TVET as a driver of economic growth and enhancing employment opportunities, and in keeping with the OD recommendation, the Department of Technical Education was formed with three divisions, namely the TVET Professional Support Division, the TVET Institute Support Division, and the TVET Promotion Division. The human resource planning and the in-service HRD functions were then transferred to the Department of Employment and Human Resources, which was later bifurcated into the Department of National HRD and the Department of Employment and Entrepreneurship in October 2021.

In November 2022, keeping in line with Civil Service Reform initiatives, the Department of Workforce Planning and Skills Development (DWPSD) was established, subsuming the Department of Technical Education and the Department of National Human Resource Development under it, with the national HRD planning and coordination functions being taken over by the Cabinet. The community skilling function under the Non-Formal Education has also been subsumed under the new department. The department is administratively placed under the Ministry of Education and Skills Development (MoESD).

The department is supported by the following four divisions:



While the DWPSD works with all the private and public TVET establishments in the country, the Department is directly responsible for overseeing the growth and development of the following ten institutes:

1. College of Zorig Chusum, Trashiyangtse (CZC)
2. National Institute for Zorig Chusum, Thimphu (NIZC)
3. Technical Training Institute, Chumey, Bumthang (TTI-C)
4. Technical Training Institute, Khuruthang, Punakha (TTI-K)
5. Technical Training Institute, Rangjung, Trashigang (TTI-R)
6. Technical Training Institute, Samthang, Wangdue (TTI-S)
7. Technical Training Institute, Thimphu (TTI-T)
8. Jigme Wangchuck Power Training Institute, Dekiling, Sarpang (JWPTI)
9. Rural Development Training Centre, Zhemgang (RDTC)
10. Royal Institute of Tourism and Hospitality, Thimphu (RITH)

The DWPSD will work on developing and implementing policies, programs, and initiatives related to workforce development and skills training. This may include developing strategies for improving quality and relevant skills and preparing the young workforce for gainful employment, as well as providing training and development opportunities to the workforce to help them stay relevant and productive in the labour force. The department will also be responsible for the implementation of TVET reform and transformation plans and for gathering labour market intelligence to inform workforce development policies and programs.

The DWPSD will work to address the needs of the labour market by ensuring that the workforce has the quality and relevant skills and knowledge to meet the needs of the economy. It will promote economic development by investing in the skills and training of the workforce, reduce unemployment by providing quality skills and training to individuals, address social issues by investing in the skills and training that can help meet the needs of special groups, and respond to technological changes by providing appropriate interventions in necessary skills and knowledge to adapt and remain competitive. The DWPSD will be responsible for ensuring that the Bhutanese workforce has the skills and competencies needed to thrive in a changing world.

Vision

A nation with competent and adequate skilled workforce for a cohesive and vibrant economy.

Mission

- To build and sustain a TVET system that produces a work-ready, world-ready and future-ready workforce, and
- To plan and coordinate the development of a skilled workforce catering to the current and future needs of the economy.

Mandates

- To provide strategic leadership and direction for the development of a dynamic, responsive and agile TVET system.
- To contribute to the development of a skilled workforce through the provision of high-quality and relevant lifelong learning and training.
- To guide workforce planning and development (through TVET) aligned to the needs of the labour market and the economy.

TVET CONTEXT INDICATORS

Labour Market Information

In the last two years, the labour force participation rate has increased from 63.1 percent in 2022 to 65 percent in 2023. While the male labour force participation rate decreased from 73.4 percent in 2022 to 72.4 percent in 2023, the female labour force participation rate increased from 53.5 percent in 2022 to 56.8 percent in 2023. Despite the fact that Bhutan has the same proportion of male and female population and working-age population, the female labour force participation rate in 2023 is lower in comparison to male labour force participation. A closer look into the 2023 data indicates that a higher proportion of adult females who are married (70.6 percent) and a high proportion of adult females with no education (58.4 percent) are not in the labour force. A total of 2,628 females with higher education are not in the labour force, out of which 2,438 are those who are 60 years and younger. A total of 13,607 working-age population (6,632 males and 6,975 females) with TVET qualification are not in the labour force, out of which 4,734 (2,672 males and 2,062 females) individuals are youth.

Both the overall labour force participation rate and youth labour force participation has increased in the two periods. Male youth labour force participation rate has increased by 0.7 percent over the two periods and female youth labour force participation rate increased by 3.1 percent in the two periods.

In 2023, the unemployment rate decreased to 3.5 percent from 5.9 percent in 2022. The unemployment rate decreased for both genders in the two periods. Youth unemployment rate also significantly decreased from 28.6 percent in 2022 to 15.9 percent in 2023. In particular, the female youth unemployment rate decreased from 32.8 percent to 18.3 percent between the two periods.

Table 1.1: Labour force indicators in 2022 and 2023

Indicators	2022			2023 (Quarter 3)		
	Male	Female	Total	Male	Female	Total
Population	316,506	333,611	650,118	393,552	362,842	756,394
Working Age Population	233,437	251,529	484,965	304,428	276,893	581,321
Labour Force	171,456	134,527	305,983	220,452	157,307	377,759
Labour Force Participation Rate (LFPR)	73.4	53.5	63.1	72.4	56.8	65.0
Youth Working Age Population	48,196	52,974	101,170	66,648	66,010	132,659
Youth Labour Force	14,738	14,944	29,682	20,881	20,662	41,542
Youth LFPR	30.6	28.2	29.3	31.3	31.3	31.3
Employed	163,941	123,843	287,784	214,483	150,242	364,725
Employment rate	95.6	92.1	94.1	97.3	95.5	96.5
Unemployment	7,515	10,684	18,199	5,969	7,066	13,035
Unemployment rate	4.4	7.9	5.9	2.7	4.5	3.5
Youth Unemployment	3,589	4,908	8,497	2,808	3,782	6,590
Youth unemployment rate	24.4	32.8	28.6	13.4	18.3	15.9

TVET in Labour Force

TVET plays a vital role in preparing individuals for the labour market. TVET programs equip individuals with practical skills, knowledge, and competencies that are essential for meeting the demands of the labour market. TVET programs can be customized to meet the specific needs of industries and employers, ensuring that individuals are trained in the skills that are most in demand.

In the context of the labour market, TVET programs can help to reduce the skills gap between the demand for labour and the supply of skilled workers. This can help to improve the overall efficiency and productivity of industries, leading to increased economic growth and development. TVET programs can also help to reduce unemployment by providing individuals with the skills and knowledge needed to secure employment in high-demand industries. Furthermore, TVET can help individuals to develop career pathways that align with their interests, skills, and goals. This can lead to more fulfilling and sustainable careers, as well as increased job satisfaction and engagement. By bridging the gap between education and the labour

market, TVET programs play a critical role in supporting economic growth and development, as well as improving the livelihoods of individuals and communities.

The Labour Force Survey provides information on the education and training qualification of an individual in the labour force. In this report, individuals who have completed either a certificate or a diploma level training/course from an education or training institute are considered as those with TVET qualifications.

As indicated in the following table, the number of employed with TVET qualifications was 7,085 in 2022, which increased to 61,700 in the 3rd quarter of 2023. The overall employment rate, which is calculated for those employed over the total labour force with TVET qualification, was 93 percent in 2022 and increased to 94.3 in 2023. However, the proportion of those with TVET qualifications is significantly lower, especially in the employed labour force. The percentage of those with TVET qualification in proportion to the total employed was only 2.5 percent in 2022 and 16.9 in 2023.

Table 1.2: Labour force with TVET qualification by gender

Indicators	2022 (Annual)			2023 (Quarter 3)		
	Male	Female	Total	Male	Female	Total
Employed (TVET)	4,108	2,977	7,085	41,192	20,509	61,700
Unemployed (TVET)	305	232	537	1,765	1,948	3,712
Total TVET Labour Force	4,414	3,208	7,622	42,956	22,457	65,413
Employment rate (TVET)	93.1	92.8	93.0	95.9	91.3	94.3
Percent of TVET employed over overall employed labour force	2.5	2.4	2.5	19.2	13.7	16.9
Percent of TVET unemployed over overall unemployed labour force	4.1	2.2	3.0	29.6	27.6	28.5

In the 13th FYP period, the Ministry of Education and Skills Development (MoESD) is mandated to increase the proportion of the workforce certified in vocational and technical skills to 50 percent by 2029 and to 80 percent by 2033. Considering the workforce, meaning employed labour force, with TVET qualification (and not accounting for the workforce with higher education), this figure was 2.5 percent in 2022 and 16.9 percent in 2023. Accounting for higher education, the figure was 12.8 percent in 2022 and 24.4 percent in 2023. Meeting the target of 50 percent would entail the

MoESD working on providing TVET and HE access to about an additional 93,000 individuals in the 13th FYP period.

Table 1.3: Workforce with TVET and Higher Education (HE) qualification

Particulars	2022 (Annual)			2023 (Quarter 3)		
	Male	Female	Total	Male	Female	Total
Workforce with TVET qualification	4,108	2,977	7,085	41,192	20,509	61,700
Workforce with TVET/HE qualification	23,100	13,818	36,918	59,608	29,336	89,052
Total Workforce	163,941	123,844	287,785	214,483	150,242	364,725
Percent of workforce with TVET qualification	2.5	2.4	2.5	19.2	13.7	16.9
Percent of workforce with TVET/HE qualification	14.1	11.2	12.8	27.8	19.5	24.4

Education and Training background of Labour Force

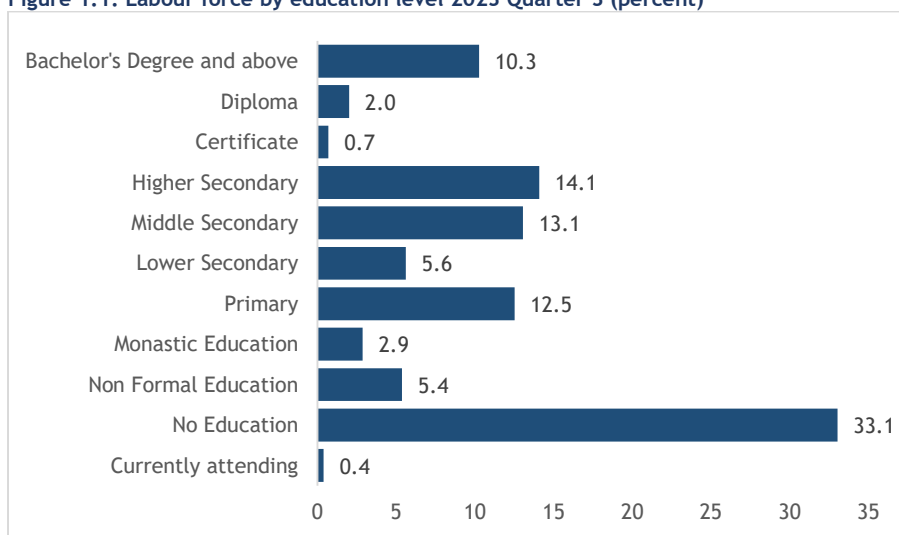
A high proportion of the Bhutanese labour force either does not have any education or has a low level of education. As shown in the following table, 33.1 percent of the labour force do not have any education. Only 10.3 percent have bachelor's degree and above qualification while the percentage of those with TVET diploma or certificate is only 2.7 percent.

A high percentage with no education means that a significant proportion of the workforce may not possess the necessary skills and knowledge required for jobs that require formal education or training. In practical terms, this could result in several challenges for the workforce, such as: lack of skilled workers for certain jobs; lower overall level of productivity and efficiency; higher rates of workplace accidents and injuries; limited opportunities for career advancement for workers with no education; and lower wages and earning potentials for workers with no education. On the other hand, having a well-educated and skilled workforce can lead to higher levels of income and better job opportunities, as employers tend to place a higher value on workers with advanced skills and education. This can lead to greater economic growth, as individuals with higher incomes tend to spend more money, creating a ripple effect throughout the economy.

Table 1.4: Profile of labour force by education level in 2023 (Quarter 3)

Qualification	Employed		Unemployed		Labour Force	
	Number	%	Number	%	Number	%
Bachelor's Degree and above	35,116	9.6	3,700	28.4	38,816	10.3
Diploma	6,695	1.8	937	7.2	7,632	2.0
Certificate	2,642	0.7	0	0.0	2,642	0.7
Higher Secondary	48,552	13.3	4,724	36.2	53,275	14.1
Middle Secondary	47,361	13.0	2,004	15.4	49,365	13.1
Lower Secondary	20,757	5.7	442	3.4	21,198	5.6
Primary	46,852	12.8	473	3.6	47,325	12.5
Monastic Education	10,822	3.0	33	0.3	10,855	2.9
Non Formal Education	20,193	5.5	128	1.0	20,321	5.4
No Education	124,258	34.1	595	4.6	124,853	33.1
Currently attending	1,476	0.4	0	0.0	1,476	0.4
Total	364,725	100	13,035	100	377,759	100

Figure 1.1: Labour force by education level 2023 Quarter 3 (percent)



As shown in the following table, 4.1 percent of the youth labour force do not have any education. While this number is significantly lower in comparison to the overall labour force, it is a matter of concern, since access to education from primary to higher secondary levels is free in the country. Only 7.9 percent of the youth labour force have a bachelor's degree or higher, which is significantly low.

Having a high proportion of the youth workforce with low levels of education means that they may not possess the necessary skills and knowledge required for many jobs that require formal education. This could translate to other impeding factors such as limiting opportunities for the youth labour force in the job market and they may be limited to jobs that require lower education. This could also translate to low earnings jobs, lower productivity at the workplace since they have limited knowledge or skills required to perform certain tasks efficiently and effectively, limited career advancement opportunities, and put them at higher risk as they may not have the skills and knowledge required to secure stable and well-paying employment.

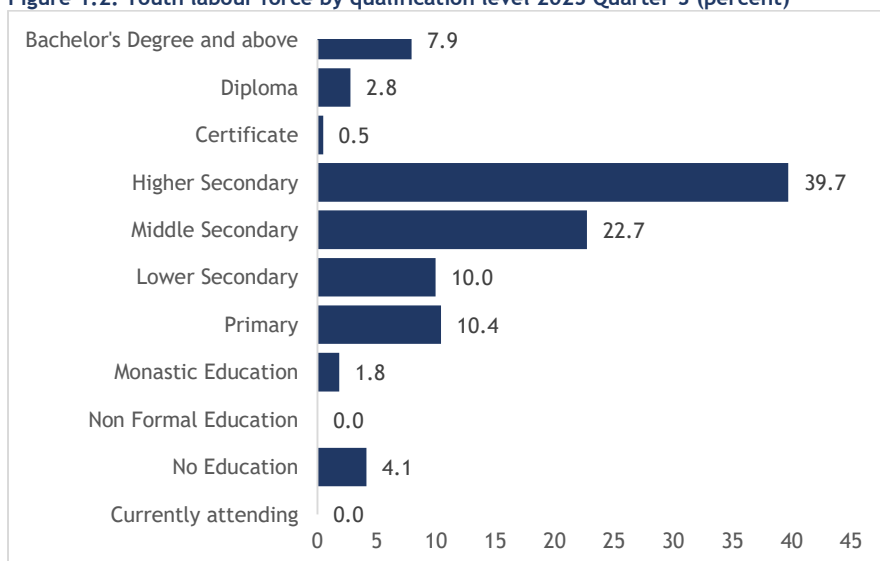
Therefore, access to quality and relevant education and training for all sections of citizens is a critical foundation for building a high-performing and productive society. When individuals have access to education and training that is tailored to their needs and the needs of the labour market, they are more likely to acquire the skills and knowledge required to succeed in the workforce.

TVET, in particular, is a valuable component of education and training systems, as it can provide individuals with practical skills and knowledge that are directly relevant to the workplace. This can lead to improved job readiness, employability, and productivity, as well as increased opportunities for career advancement and higher wages over time. However, TVET is most effective when it is complemented by access to quality education at all levels, including primary, secondary, and tertiary education. A strong foundation in general education can help to ensure that individuals have the literacy, numeracy, and critical thinking skills required to succeed in both work and life.

Table 1.5: Profile of youth labour force by education level 2023 (Quarter 3)

Qualification	Employed		Unemployed		Labour Force	
	Number	%	Number	%	Number	%
Bachelor's Degree and above	1,547	4.4	1,751	26.6	3,299	7.9
Diploma	777	2.2	385	5.8	1,162	2.8
Certificate	199	0.6	0	0.0	199	0.5
Higher Secondary	13,292	38.0	3,206	48.6	16,498	39.7
Middle Secondary	8,477	24.3	970	14.7	9,447	22.7
Lower Secondary	4,015	11.5	122	1.9	4,137	10.0
Primary	4,243	12.1	83	1.3	4,326	10.4
Monastic Education	764	2.2	0	0.0	764	1.8
Non Formal Education	0	0.0	0	0.0	0	0.0
No Education	1,639	4.7	74	1.1	1,712	4.1
Currently attending	0	0.0	0	0.0	0	0.0
Total	34,953	100	6,590	100	41,542	100

Figure 1.2: Youth labour force by qualification level 2023 Quarter 3 (percent)



Employment profile of workforce with TVET background

As indicated in table 1.6, in the year 2023, a total of 61,700 employed workforce has TVET qualification. A closer look at the data shows that 16.8 percent are working as services and sales workers, 14.4 percent are working as technicians and associate professionals, 13.8 percent are working as craft and related workers, 13 percent are working as professionals, 12.8 percent are working as legislators, senior officials and managers, and 10.9 percent are working as skilled agricultural and forestry workers.

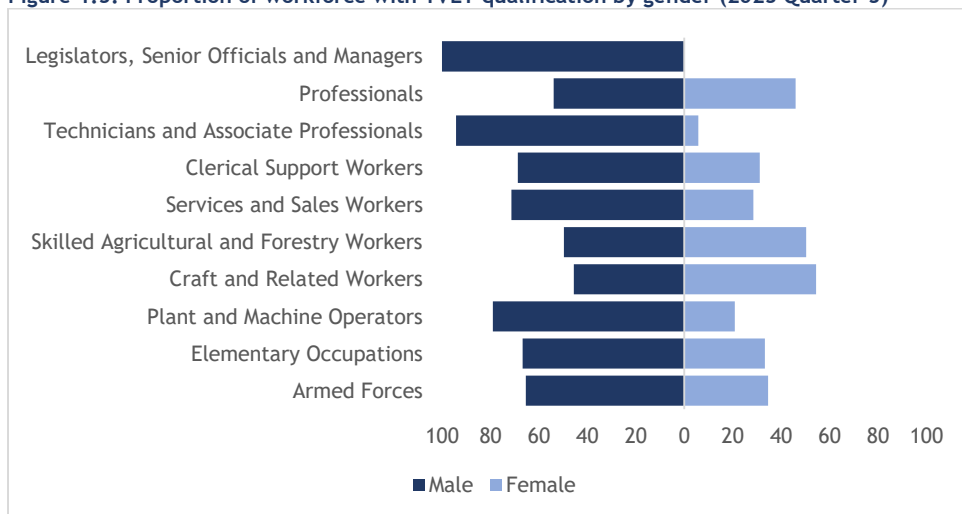
A comparison between the two genders shows that a larger percentage of females are employed in the services and sales workers category, while males are more prevalent in roles such as technicians and associate professionals, and plant and machine operators. The number of those working in elementary occupations is not very significant as indicated in table 1.6.

The higher representation of females in service and sales roles and males in technical and machine-operating positions may reflect existing societal norms and perceptions regarding suitable career paths for each gender. These patterns could influence the distribution of opportunities, wages, and career advancement prospects between genders within the TVET sector. Furthermore, the relatively low representation of individuals in elementary occupations might indicate either a lack of interest in these roles among TVET-qualified individuals or a higher demand for skilled positions in the workforce. Addressing these disparities may involve promoting diversity and inclusion within vocational training programs, encouraging equal access to various career pathways regardless of gender, and fostering awareness of the value of all types of occupations within the labour market. Such efforts could contribute to creating more inclusive and equitable opportunities for individuals with TVET qualifications across different occupational sectors.

Table 1.6: Major occupation of workforce with TVET qualification (2023 Quarter 3)

SN	Major Occupation	Male		Female		Total	
		N	%	N	%	N	%
1	Legislators, Senior Officials and Managers	5,163	12.5	2,738	13.3	7,900	12.8
2	Professionals	5,336	13.0	2,668	13.0	8,004	13.0
3	Technicians and Associate Professionals	7,017	17.0	1,863	9.1	8,879	14.4
4	Clerical Support Workers	2,181	5.3	2,610	12.7	4,791	7.8
5	Services and Sales Workers	5,141	12.5	5,215	25.4	10,356	16.8
6	Skilled Agricultural and Forestry Workers	4,809	11.7	1,933	9.4	6,741	10.9
7	Craft and Related Workers	5,831	14.2	2,656	13.0	8,488	13.8
8	Plant and Machine Operators	4,186	10.2	260	1.3	4,446	7.2
9	Elementary Occupations	664	1.6	567	2.8	1,231	2.0
10	Armed Forces	863	2.1	0	0.0	863	1.4
	Total	41,191	100	20,509	100	61,700	100

Figure 1.3: Proportion of workforce with TVET qualification by gender (2023 Quarter 3)



The employed labour force with TVET qualification are working in different economic activities as indicated in the following table. The economic activities range from public administration and defence, health and social work activities, wholesale and retail trade, repair of motor vehicles, electricity and gas supply, education, and financial and insurance activities.

However, the majority of those with TVET qualifications, both male and female, are working in public administration and defence (17.1 percent) or in agriculture, forestry and fishing (11.7 percent).

Table 1.7: Economic Activity of workforce with TVET qualification (2023)

SN	Economic Activity	Male		Female		Total	
		N	%	N	%	N	%
1	Agriculture, Forestry and Fishing	5,242	12.7	1,983	9.7	7,225	11.7
2	Mining and Quarrying	85	0.2		0.0	85	0.1
3	Manufacturing	2,296	5.6	1,986	9.7	4,281	6.9
4	Electricity, Gas, Steam and Air Conditioning Supply	2,105	5.1	560	2.7	2,666	4.3
5	Construction	3,491	8.5	358	1.7	3,848	6.2
6	Wholesale & Retail Trade; Repair of Motor Vehicles and Motorcycles	3,414	8.3	3,221	15.7	6,635	10.8
7	Transportation and Storage	2,811	6.8	260	1.3	3,071	5.0
8	Accommodation and Food Service Activities	2,766	6.7	2,854	13.9	5,620	9.1
9	Information and Communication	782	1.9	314	1.5	1,096	1.8
10	Financial and Insurance Activities	1,651	4.0	881	4.3	2,533	4.1
11	Real Estate Activities	109	0.3		0.0	109	0.2
12	Professional, Scientific and Technical Activities	299	0.7	468	2.3	767	1.2
13	Administrative and Support Service Activities	1,367	3.3	265	1.3	1,632	2.6
14	Public Administration and Defence; Compulsory Social Security	7,740	18.8	2,804	13.7	10,544	17.1
15	Education	4,156	10.1	2,340	11.4	6,495	10.5
16	Human Health and Social Work Activities	2,230	5.4	1,253	6.1	3,483	5.6
17	Arts, Entertainment and Recreation	387	0.9	250	1.2	637	1.0
18	Other Service Activities	262	0.6	712	3.5	975	1.6
	Total	41,192	100	20,509	100	61,701	100

Figure 1.4: Workforce with TVET qualification by major economic activity (% , 2023)



Unemployed Labour Force with TVET background

The LFS 2023 Quarter 3 report also provides information on reasons for unemployment. Among those with TVET qualifications, 3,712 are unemployed. 26.3 of those with TVET qualifications indicated lack of experience, 24 percent indicated that they recently completed their studies and 18.6 percent indicated lack of adequate qualification as the main reasons for current unemployment. It's important to note that none of the respondents cited lack of skills as the reason for their current unemployment.

A significant portion of TVET-qualified individuals remain unemployed after completing their studies, suggesting challenges in transitioning from education to employment. The high percentage citing lack of experience underscores the importance of practical exposure and on-the-job training in enhancing employability. The proportion highlighting inadequate qualifications implies a mismatch between the skills acquired through TVET programs and the demands of the job market, signalling potential gaps in skills provided and industry demand.

Table 1.8: Reasons for unemployment stated by those with TVET qualification (2023)

SN	Reasons for unemployment	Number			%		
		Male	Female	Total	Male	Female	Total
1	Recently completed studies	462	427	889	28.3	20.5	24.0
2	Qualification mismatch	57	247	304	3.5	11.9	8.2
3	Voluntarily resigned	94	145	239	5.8	7.0	6.5
4	Term based job ended	149	217	366	9.1	10.5	9.9
5	Terminated from previous job	42	0	42	2.6	0.0	1.1
6	Illness or injury	79	33	112	4.8	1.6	3.0
7	Lack of experience	480	496	976	29.5	23.9	26.3
8	Lack of adequate qualification	267	423	690	16.4	20.4	18.6
9	Others	0	90	90	0.0	4.3	2.4
	Total	1,630	2,079	3,709	100	100	100

Forecast of Class XII graduates in 13th FYP

The population projection, more specifically, the youth population is important for concerted TVET planning and design of appropriate interventions. In the 13th FYP, the MoESD is mandated to provide TVET access to about 40 percent of class XII graduates post National Gyalzung Program. As indicated in the following table, the youth population between 2024 and 2029 is expected to decline. This could be the result of decline in the number of new-borns post 1990s and increase in the number of youths pursuing education and employment outside the country.

Table 1.9: Projection of youth population from 2023 to 2030

Age	2024	2025	2026	2027	2028	2029
15	12,728	12,445	12,236	12,071	11,913	11,715
16	13,056	12,717	12,435	12,226	12,062	11,905
17	13,412	13,044	12,705	12,425	12,216	12,052
18	13,699	13,402	13,033	12,695	12,415	12,206
19	13,868	13,687	13,391	13,023	12,685	12,405
20	13,838	13,850	13,671	13,375	13,009	12,673
21	13,692	13,817	13,830	13,652	13,357	12,991
22	13,477	13,671	13,796	13,810	13,633	13,338
23	13,330	13,456	13,651	13,776	13,790	13,615
24	13,329	13,310	13,436	13,631	13,757	13,772
Total	134,429	133,399	132,184	130,684	128,837	126,672

Source: National Population Projection Report 2019, NSB

A total of about 168,324 students were enrolled in the education system in the year 2021, out of which a huge number were those in primary education. Between the years 2012 and 2021, the total number of students decreased by about 10,000. The effect can be seen while looking at the enrolment over the last ten years from class PP to class XII.

Table 1.10: Student enrolment in the education system from 2012 to 2021

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Primary	110,617	104,323	101,667	99,291	96,654	94,184	92,298	89,719	94,165	92,621
Lower Secondary	27,887	28,018	28,929	28,992	29,353	29,296	28,989	27,200	25,299	24,210
Middle Secondary	22,941	23,581	24,400	24,686	25,382	25,682	26,338	26,767	26,813	25,892
Higher Secondary	16,914	16,469	17,397	18,433	18,171	18,930	19,483	22,671	24,529	25,601
Total	178,359	172,391	172,393	171,402	169,560	168,092	167,108	166,357	170,806	168,324

In assessing the number of Class XII graduates in the 13th FYP period, the education data and information on the actual number of students from class PP to Class XII from the year 2012 to 2021 were used. The forecast was made using the following assumption:

- Regression results of male and female student enrolment and student movement to higher grade in the subsequent year from 2012 to 2021 for all grades (class PP to Class XII).
- The regression result takes into account that the current practice of no cut-off policy for class X will be continued in the 13th plan period, considering the National Gyalsung Program which will be initiated in the 13th plan period benefiting all class XII graduates.
- The National Gyalsung Program for class XII graduates commences in the year 2024, benefiting the 2023 class XII graduate cohort.

Taking the above into consideration, a total of about 12,500 class XII students post National Gyalsung Program is expected to annually graduate w.e.f 2025. Considering that the National Gyalsung Program is for a period of one year, the class XII students will graduate from the program in the subsequent year.

Table 1.11: Forecast of higher secondary graduates from 2024 to 2029

	2024	2025	2026	2027	2028	2029
Class XII graduates	12938	12,462	12,241	12,667	12,535	12,316
Class XII graduates post National Gyalsung Program	13,478	12938	12,462	12,241	12,667	12,535

Source: Labour Market Report 2023, DWPSD

Foreign Workers

Bhutan imports a high number of foreign workers. In 2023, the Department of Labour (DoL) approved foreign workers' applications for 137,324 individuals. Majority of these foreign workers were engaged in three major economic activities, which are: Construction; Public administration and defence, compulsory social security; and Manufacturing.

The substantial approval of foreign workers' applications suggests a demand-supply gap in the local labour market, where domestic availability may not meet the requirements of key economic sectors. The concentration of foreign workers in construction, public administration, and manufacturing indicates these sectors' pivotal roles in Bhutan's economic growth and development. While foreign workers contribute to meeting immediate labour demands, there's an opportunity for knowledge transfer and skill development among Bhutanese workers through exposure to foreign expertise and practices in these sectors.

However, easy access to foreign workers can create a number of challenges for those looking for jobs and those entering the labour market. For one, it can lead to preference for employers to hire foreign workers in place of hiring local job seekers, which can lead young workers with valuable skills and qualifications to seek better job opportunities abroad. Additionally, the reliance on foreign workers can create issues around worker rights and exploitation, as foreign workers may be more vulnerable to abuse and mistreatment.

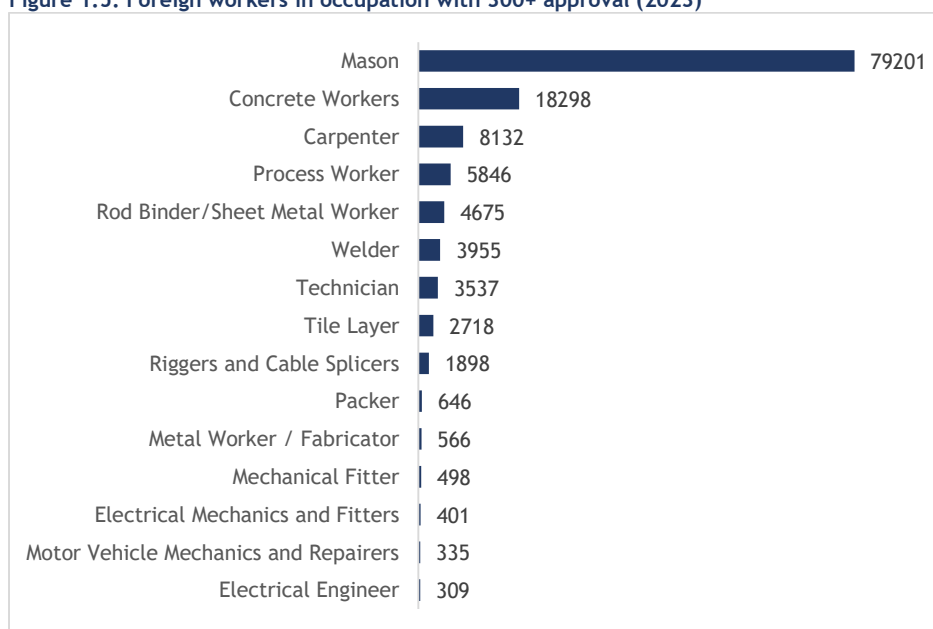
Table 1.12: Foreign workers approved in 2023 by economic activity

SN	Economic Activity	Percent
1	Construction	71.6
2	Public administration and defense, compulsory social security	14.4
3	Manufacturing	7.4
4	Electricity, gas, steam and air conditioning supply	1.3
5	Education	0.9
6	Other Services	0.9
7	Wholesale and retail trade	0.8
8	Accommodation and Food service activities	0.7
9	Professional, scientific and technical services	0.3
10	Transportation and storage	0.2
11	Information and communication services	0.2
12	Mining and quarrying	0.2

13	Human health and social work	0.2
14	Financial services and insurance	0.2
15	Administrative and support services	0.1
16	Activities of extraterritorial organizations and bodies	0.1
17	Arts, entertainment and recreation	0.1
18	Activities of households as employers; undifferentiated goods and services producing activities of households for own use	0.1
19	Real estate	0.1
	Total	100

As highlighted in the following figure, the highest number of foreign worker approval was in the category of mason and concrete workers. Most of the occupations highlighted are in the construction sector. In the period mentioned above, Bhutan sourced foreign workers mainly from neighbouring country, India.

Figure 1.5: Foreign workers in occupation with 300+ approval (2023)



TVET ACCESS INDICATORS

Profile of TVET Institutes in the country

The mechanism for establishment and registration of training providers was developed in 2010 with the objective to create an enabling environment for fostering TVET providers by both private and public individuals/entities in the country. Both the establishment and regulation aspects are currently administered and facilitated by the TVET QC.

Since the mechanism was put in place, an increasing number of private promoters have set up TVET institutes in the country. In 2023, a total of 136 training providers were registered in the country, out of which 84.6 percent were under private ownership while 5 training providers were under the NGO ownership.

The number of training providers under the Government ownership was 14 in 2023 which accounts for 10.3 percent of the overall training institutes in the country. From the 14 government-owned institutes, ten TVET institutes are under the direct administration of the DWPSD.

Table 2.1: Number of TVET institutes by ownership type in 2022 and 2023

SN	Ownership Type	2022		2023	
		Number	Percent	Number	Percent
1	Government	14	10.3	14	10.3
2	Corporate	3	2.2	2	2.0
3	NGO	11	8.1	5	3.7
4	Private (Partnership)	28	20.6	33	24.3
5	Private (Sole Proprietorship)	80	58.8	82	60.3
	Total	136	100.0	136	100

The registration process has a grading mechanism put in place in which assessment is done based on points for different components. During the registration process, a training provider must provide details on the governance and location; physical resources; human resources; teaching, learning and assessment system; student welfare and support services; and internal quality management system. These components are inspected

physically to assess points for different areas. The Registration Certificate is directly tied to the licensing process. A certificate issued for Grade ‘A’ is valid for three years, a certificate issued at Grade ‘B’ is valid for two years, and a certificate issued at Grade ‘C’ is valid only for one year.

A Grade ‘A’ institute is expected to have a higher level of quality in terms of infrastructure, quality management mechanism, and other aspects of TVET delivery. As indicated in the following table, the majority of training providers in the country are registered at Grade ‘C’ (79.4 percent). There was a total of 18 Grade ‘B’ institutes and 10 Grade ‘A’ institutes in the country in 2023.

Table 2.2: Number of TVET institutes by registration grade in 2022 and 2023

SN	Institute Grade	2022		2023	
		Number	Percent	Number	Percent
1	Grade A	7	5.1	10	7.4
2	Grade B	20	14.7	18	13.2
3	Grade C	106	77.9	108	79.4
4	None	3	2.2	0	0.0
	Total	136	100.0	136	100.0

Location of an institute can be driven by a number of factors, which may include: availability of skilled trainers, number of youth population or potential trainees, cost of business operation which can include rental and cost for running the business, and economic opportunities created by different sectors and industries within the location. As indicated by the following table, 59.6 percent of the training providers are located in Thimphu which has the largest population and diverse economic activities. A total of 11 training providers are registered in Chukha and 11 in Paro. However, there are very few training providers registered in the central and eastern parts of the country, which can limit the choices and access to skills development opportunities for the individuals in these locations.

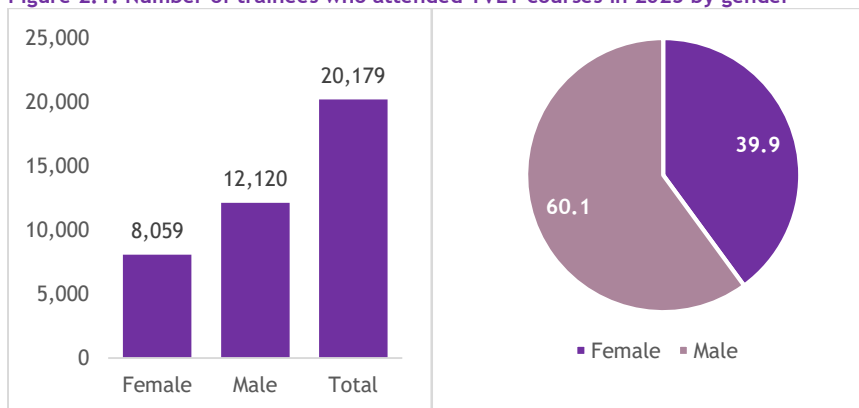
Table 2.3: Number of TVET institutes by location in 2022 and 2023

SN	Dzongkhags	2022		2023	
		Number	Percent	Number	Percent
1	Bumthang	4	2.9	4	2.9
2	Chukha	13	9.6	11	8.1
3	Dagana	1	0.7	1	0.7
4	Mongar	1	0.7	1	0.7
5	Paro	10	7.4	11	8.1
6	Pemagatshel	1	0.7	1	0.7
7	Punakha	2	1.5	2	1.5
8	Samdrup Jongkhar	3	2.2	3	2.2
9	Samtse	2	1.5	2	1.5
10	Sarpang	7	5.1	7	5.1
11	Thimphu	80	58.8	81	59.6
12	Trashigang	3	2.2	3	2.2
13	Trashiyangtse	1	0.7	3	0.7
14	Tsirang	1	0.7	2	1.5
15	Wangdue Phodrang	5	3.7	5	3.7
16	Zhemgang	2	1.5	1	0.7
	Total	136	100	136	100

TVET enrolment in the country

As per the TVET-MIS, a total of 74 TVET courses were implemented by different TVET providers, both public and private, in 2023. A total of 20,179 individual attended these different TVET courses. A total of 8,059 female attended the TVET training which accounts for 39.9 percent of the total who attended TVET courses in 2023.

Figure 2.1: Number of trainees who attended TVET courses in 2023 by gender



List of TVET courses provided in 2023

1	3D Printing	20	Construction Carpentry	39	Heavy Vehicle Driving	58	Shag-Zop
2	Acting-Black Box Theatre	21	Contemporary Sculpture	40	Industry Electrical Technician	59	Solar Power Technology
3	Advance IT (Office Application)	22	Culinary Arts	41	Introductory Driving Course	60	Sowa Rigpa and Wellness
4	Auto Electrician	23	Cultural Tour Guide	42	Jim-Zop	61	Tailoring
5	Auto Mechanic	24	Dairy Production	43	Lhadrip	62	Tally ERP 9
6	Automobile Painter	25	Digital Marketing	44	Light Vehicle Driving	63	Thazho(Weaving)
7	Backhoe Operator	26	Domestic Electrician	45	Mason	64	Tile Laying
8	Bag Design and Production	27	Domestic Wiring	46	Mechanical Fitting	65	Transmission and Distribution Linemen
9	Bakery and Confectionery	28	Early Childhood Care and Development	47	Medicinal and Aromatic Plants and Spices	66	Trekking Guide
10	Bakery and Pastry	29	Earth Moving Equipment Mechanic	48	Metal Art Design and Fabrication	67	Troe-Zop
11	Barista	30	Electric Vehicle	49	Mobile robotic	68	Tshem-Zop
12	Bartender	31	Excavator Operator	50	Motor Rewinding	69	Tshemdrup
13	Basic Floriculture	32	False Ceiling	51	Mushroom Production	70	Upholstery
14	Basic Internet of Things (IoT)	33	Food Product Development	52	Panel Beater	71	Vegetable Production
15	Basic Landscape Design	34	Food Production	53	Patrap	72	Welding
16	Cane and Bamboo Art Design and Development	35	Fruit Production	54	Plumbing	73	Western Garment Tailoring
17	CCTV System	36	Furniture Making	55	Poultry Production	74	Wooden Furniture Making
18	Cloud Computing - AWS re/Start Program	37	Hair and Beauty Therapy	56	Professional Driver		
19	Computer Hardware and Networking Technician	38	Heavy Auto Mechanic	57	Refrigeration and Air Conditioning Technician		

Table 2.4: TVET courses implemented by certification level in 2023

SN	Certificate Level	Female	Male	Total	Female %
1	Certificate	7,389	7,041	14,430	51.2
2	NC2	588	4,906	5,494	10.7
3	NC3	82	159	241	34.0
4	ND2	0	14	14	0.0
	Total	8,059	12,120	20,179	39.9

TVET enrolment in DWPSD administered institutes

Ten institutes are under the direct management and administration of the DWPSD. A total of 3308 trainees were trained in 2023. 48.4 percent of the courses are at the certificate level and 51.2 percent of the courses are at NC2 and NC3 level. Only two ND level courses for 14 candidates were implemented in 2023, mainly in the College of Zorig Chusum (CZC).

The following tables provide detailed information on the TVET courses implemented by the DWPSD administered institutes by level of certification in 2023.

Table 2.5: TVET enrolment by certification in DWPSD administered Institutes in 2023

SN	Institute	Certificate	NC2	NC3	ND2	Total	%
1	CZC	0	46	50	14	110	3.3
2	JWPTI	241	186	14	0	441	13.3
3	NIZC	182	7	73	0	262	7.9
4	RDTC	292	0	0	0	292	8.8
5	RITH	230	0	0	0	230	7.0
6	TTI-C	157	56	9	0	222	6.7
7	TTI-K	233	211	0	0	444	13.4
8	TTI-R	79	274	14	0	367	11.1
9	TTI-S	170	569	36	0	775	23.4
10	TTI-T	17	130	18	0	165	5.0
	Total	1,601	1,479	214	14	3,308	100
	%	48.4	44.7	6.5	0.4	100	

Table 2.6: TVET enrolment in CZC by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Jim-Zop	0	7	0	0	7	6.4
2	Lhadrip	0	0	0	10	10	9.1
3	Patrap	0	0	9	4	13	11.8
4	Shag-Zop	0	0	5	0	5	4.5
5	Troe-Zop	0	9	0	0	9	8.2
6	Tshem-Zop	0	18	36	0	54	49.1
7	Tshemdrup	0	12	0	0	12	10.9
	Total	0	46	50	14	110	100

Table 2.7: TVET enrolment in NIZC by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Bag Design and	17	0	0	0	17	6.5
2	Contemporary Sculpture	6	0	0	0	6	2.3
3	Jim-Zop	0	4	0	0	4	1.5
4	Lhadrip	51	0	29	0	80	30.5
5	Patrap	22	0	14	0	36	13.7
6	Thazho(Weaving)	6	0	0	0	6	2.3
7	Troe-Zop	0	3	4	0	7	2.7
8	Tshem-Zop	57	0	18	0	75	28.6
9	Tshemdrup	23	0	8	0	31	11.8
	Total	182	7	73	0	262	100

Table 2.8: TVET enrolment in JWPTI by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	3D Printing	28	0	0	0	28	6.3
2	Bakery and Confectionery	14	0	0	0	14	3.2
3	Bakery and Pastry	16	0	0	0	16	3.6
4	Basic Landscape Design	6	0	0	0	6	1.4
5	Construction Carpentry	9	12	0	0	21	4.8
7	Domestic Electrician	0	22	0	0	22	5.0
8	Domestic Wiring	48	0	0	0	48	10.9
9	False Ceiling	17	0	0	0	17	3.9
10	Furniture Making	28	0	0	0	28	6.3
12	Mason	0	21	14	0	35	7.9
13	Mechanical Fitter	5	13	0	0	18	4.1
15	Mobile robotic	7	0	0	0	7	1.6
16	Plumber	0	28	0	0	28	6.3
17	Solar Power Technology	21	0	0	0	21	4.8
18	Transmission and Distribution Linemen	18	49	0	0	67	15.2
20	Upholstery	14	0	0	0	14	3.2
21	Welding	10	34	0	0	44	10.0
24	Wooden Furniture Making	0	7	0	0	7	1.6
	Total	241	186	14	0	441	100

Table 2.9: TVET enrolment in RDTC by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Bakery and Confectionery	85	0	0	0	85	28.6
2	Basic Floriculture	30	0	0	0	30	10.1
3	Cane and Bamboo Art Design and Development	13	0	0	0	13	4.4
4	Culinary Arts	31	0	0	0	31	10.4
5	Dairy Production	20	0	0	0	20	6.7
6	Food Product Development	44	0	0	0	44	14.8
7	Fruit Production	10	0	0	0	10	3.4
8	Medicinal and Aromatic Plants and Spices	10	0	0	0	10	3.4
9	Mushroom Production	15	0	0	0	15	5.1
10	Poultry Production	24	0	0	0	24	8.1
11	Vegetable Production	15	0	0	0	15	5.1
	Total	292	0	0	0	292	100

Table 2.10: TVET enrolment in TTI-C by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Bakery and Confectionery	13	0	0	0	13	5.9
2	Construction Carpentry	11	0	0	0	11	5.0
3	Machine Learning	0	8	0	0	8	3.6
4	Mason	0	13	0	0	13	5.9
5	Metal Art Design	2	0	0	0	2	0.9
6	Plumbing	51	18	0	0	69	31.1
7	Tile Laying	47	0	0	0	47	21.2
8	Welder	0	12	9	0	21	9.5
9	Wooden Furniture Making	33	5	0	0	38	17.1
	Total	157	56	9	0	222	100

Table 2.11: TVET enrolment in TTI-K by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Basic Internet of Things	7	0	0	0	7	1.6
2	CCTV System	76	0	0	0	76	17.1
3	Domestic Electrician	0	161	0	0	161	36.3
4	Domestic Wiring	61	0	0	0	61	13.7
5	Mechanical Fitting	16	26	0	0	42	9.5
6	Metal Art Design and Fabrication	6	9	0	0	15	3.4
7	Motor Rewinding	14	0	0	0	14	3.2
8	Welding	53	15	0	0	68	15.3
	Total	233	211	0	0	444	100

Table 2.12: TVET enrolment in TTI-R by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Auto Mechanic	0	26	0	0	26	7.1
2	Cloud Computing - AWS re/start program	70	0	0	0	70	19.1
3	Computer Hardware and Networking Technician	0	50	0	0	50	13.6
4	Domestic Electrician	0	152	0	0	152	41.4
5	Hair and Beauty Therapy	9	0	0	0	9	2.5
6	Industry Electrical Technician	0	0	14	0	14	3.8
7	Wooden Furniture Making	0	46	0	0	46	12.5
	Total	79	274	14	0	367	100

Table 2.13: TVET enrolment in TTI-S by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Auto Electrician	0	201	36	0	237	30.6
2	Auto Mechanic	0	213	0	0	213	27.5
3	Backhoe Operator	0	23	0	0	23	3.0
4	Bag Design and Production	7	0	0	0	7	0.9
5	Digital Marketing	32	0	0	0	32	4.1
6	Earthmoving Equipment Mechanic	0	66	0	0	66	8.5
7	Excavator Operator	0	45	0	0	45	5.8

8	Hair and Beauty Therapy	90	0	0	0	90	11.6
9	Heavy Auto Mechanic	0	21	0	0	21	2.7
10	Heavy Vehicle Driving	41	0	0	0	41	5.3
	Total	170	569	36	0	775	100

Table 2.14: TVET enrolment in TTI-T by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Auto Mechanic	0	59	18	0	77	46.7
2	Automobile Painter	0	19	0	0	19	11.5
3	Electric Vehicle	17	0	0	0	17	10.3
4	Panel Beater	0	10	0	0	10	6.1
5	Refrigeration and Air Conditioning Technician	0	42	0	0	42	25.5
	Total	17	130	18	0	165	100

Table 2.15: TVET enrolment in RITH by level of certification in 2023

SN	Courses	Certificate	NC2	NC3	ND2	Total	%
1	Barista	177	0	0	0	177	76.6
2	Bartender	28	0	0	0	28	12.1
3	Food Production	26	0	0	0	26	11.3
	Total	231	0	0	0	231	100

Female Enrolment

Higher female enrolment in TVET is essential to foster gender equality by providing females with equal opportunities to access skills-based training and pursue careers in diverse economic activities. Equipping females with the practical skills needed to secure well-paying jobs and participate actively in the workforce can lead to enhancing their financial independence and socioeconomic status. Additionally, increased female representation in TVET programs promotes diversity and innovation within industries, as women bring unique perspectives and talents, leading to more inclusive and effective solutions to complex challenges.

Empowering women through TVET can have a ripple effect on communities, as educated and skilled women are more likely to invest in their families' education, health, and well-being, thereby contributing to overall societal development and prosperity. Therefore, higher female enrolment in TVET is not only a matter of equity and social justice but also a strategic imperative for sustainable economic growth and human development.

In 2023, female enrolment into the DWPSD administered institutes was 32.5 percent. The female enrolment for Zorig Chusum courses, agriculture

related courses and hospitality courses are much higher in comparison to other courses.

Table 2.16: Female enrolment by institute in 2023

SN	Institute	Female	Male	Total	Female %
1	CZC	64	46	110	58.2
2	JWPTI	146	295	441	33.1
3	NIZC	130	132	262	49.6
4	RDTC	123	169	292	42.1
5	RITH	132	98	230	57.4
6	TTI-C	54	168	222	24.3
7	TTI-K	96	348	444	21.6
8	TTI-R	132	235	367	36.0
9	TTI-S	186	589	775	24.0
10	TTI-T	13	152	165	7.9
	Total	1,076	2,232	3,308	32.5

Table 2.17: Female enrolment by level of certification in 2023

SN	Certification Level	Female	Male	Total	Female %
1	Certificate	692	909	1,601	43.2
2	NC2	302	1,177	1,479	20.4
3	NC3	82	132	214	38.3
4	ND2	0	14	14	0.0
	Total	1,076	2,232	3,308	32.5

PWD Enrolment

TVET for persons with disabilities (PWD) is essential for promoting their employment, self-reliance, and overall well-being. TVET can be a means to equip PWDs with the skills and knowledge required to enter the labour market and contribute to the economic development of their communities. It can also enable PWDs to participate fully in society, lead independent lives, and exercise their rights to education and work.

However, PWDs often face various barriers in accessing TVET, including physical and attitudinal barriers, lack of appropriate teaching and learning materials, and insufficient support services. To overcome these barriers, TVET for PWDs must be designed to be inclusive, flexible, and responsive to their needs. This includes providing reasonable accommodations, such as accessible learning environments, assistive technologies, and specialized support services, to ensure that PWDs can participate fully and effectively in all aspects of TVET. Additionally, partnerships between TVET providers, employers, and disability organizations can help to create pathways to employment and entrepreneurship for PWDs. By ensuring that TVET is

accessible and inclusive for PWDs, society can benefit from the contributions of a diverse and talented workforce.

Ongoing initiatives to promote inclusive and diverse training programs that cater to the needs of all members of society have led to incorporation of PWD profiling in the single-intake window through the TVET-MIS enhancement work.

From the 17 PWD graduates in 2023, 2 graduated from CZC, 3 from JWPTI, 2 from NIZC, 7 from RDTC, 1 from TTI-C, 1 from TTI-K and 1 from TTI-T. With the construction of the new TTI in Thimphu, incorporating PWD friendly design and infrastructure, higher enrolment of PWDs can be expected in the future. In addition, under the ADB funded STEP-UP project, two training programs designed specifically for 30 PWD individuals were implemented in 2023 in tailoring and ICT courses, which is not reflected in the following table.

Table 2.18: PWD enrolment in institutes by certification level in 2023

Certification Level	Female	Male	Total
Certificate	1	8	9
NC2	3	3	6
NC3	0	2	2
Total	4	13	17

Table 2.19: PWD enrolment in institutes by course in 2023

Courses	Female	Male	Total
Automobile Painter	0	1	1
Cane and Bamboo Art Design and Development	1	6	7
Construction Carpentry	1	0	1
Mechanical Fitter	0	1	1
Patrap	0	2	2
Plumber	2	1	3
Shag-Zop	0	1	1
Tshem-Zop	0	1	1
Total	4	13	17

Skills Development Program

The DWPSD provides different skills training under various programs, in addition to the regular training offered through the DWPSD-administered institutes. Some of these programs include the Skills Development Program (SDP), Critical Skills Training (CST), Critical Capability Development (CCD), Village Skills Development Program (VSDP), and Special Skills Development Program (SSDP).

The SDP is a program that was initiated in 2021 to mitigate the socio-economic impact caused by the COVID-19 pandemic and to ensure inclusive and sustainable recovery through effective intervention in skills training and development. The program targets jobseekers and those affected by the pandemic, and its objectives are to provide relevant and quality skills training geared towards enhancing the skills and competencies of beneficiaries, provide diverse and easy access to skills training to promote economic activities and entrepreneurship in the immediate time, and address the aspirations and potential of the target group to tap current and emerging economic opportunities.

A total of 108 skilling areas in the nine priority sectors were identified for implementation, including Agriculture, Business and Services, Computing and IT, Construction, Creative Art and Design, Electrical, Electronic and Mechanical, Manufacturing, Power and Renewable Energy, and Tourism and Hospitality. The skill areas were identified based on skills needs identified in the 12th FYP HRD Master plan, the National Workforce Plan, and the TVET Curriculum Framework, as well as current labour market needs based on local and global labour market dynamics, the interest of jobseekers, and the prospect of self-employment opportunities.

All courses under the SDP are complemented by two weeks of entrepreneurship learning to foster self-employment and entrepreneurship post-skilling. Additional skilling opportunities are also provided to encourage multi-skilling. According to the TVET-MIS, a total of 3557 beneficiaries were trained through SDP in 2023, of which 2100 were trained at the certificate level, 1381 at NC2 level, and 76 at NC3 level. Only 39.8 percent of the beneficiaries were female.

Table 2.20: Skills Development Program (SDP) enrolment in 2023

SN	Institute	Certificate	NC2	NC3	Total	Female	Female %
1	JWPTI	241	181	14	436	142	32.6
2	NIZC	182	0	0	182	104	57.1
3	RDTTC	292	0	0	292	123	42.1
4	RITH	230	0	0	230	132	57.4
5	TTI-C	157	56	9	222	54	24.3
6	TTI-K	233	134	0	367	81	22.1
7	TTI-R	79	249	14	342	128	37.4
8	TTI-S	170	569	21	760	182	23.9
9	TTI-T	17	130	18	165	13	7.9
10	Other Institutes	499	62	0	561	456	81.3
	Total	2100	1381	76	3557	1415	39.8

Critical Skills Training

Critical Skills Training is a need-based HRD intervention geared towards addressing the immediate HR requirements in the labour market. The main objective of the program is to provide employable skills to youth seeking employment in the private sector and to facilitate private sector development through the supply of a skilled workforce.

The skills training was initiated in the 9th FYP. The program is flexible in its implementation and its mode of training delivery. Furthermore, making changes based on learning from each experience is faster and easier. While the earlier modality of delivery focused only on training aspects, the ones implemented from the 11th FYP period focused on employment. Skills training has been effective in addressing the immediate short-term gap in the labour market, which cannot be addressed through the formal skills training.

The program is implemented in partnership with different registered training providers in the country (both private and public). The training areas are aligned with the needs identified in the 12th FYP HRD Masterplan for the Economic Sectors (2018-23). Furthermore, validation is carried out through the HRD Committee, where there is member representation for all private sector associations in the country. The key target for this program is jobseekers and the unemployed. The program seeks to provide skills as a means to employment and livelihood. The program is also complemented with an entrepreneurship component to enable a person to explore self-employment options.

As indicated in the following table, a total of 200 individuals were trained under different CST programs in 2023. All these trainings were offered at institute certification level and were implemented in partnership with registered private training providers in the country. 38.5 percent of the beneficiaries were female candidates.

Online learning through EdX for one month was also provided to the 200 individuals undergoing the CST programs to equip them with the required transferable skills and to complement the skills training and enhance their employability.

Table 2.21: Critical Skills Training (CST) implemented in 2023

SN	Course Title	Certificate	Female	Male	Total	Female %
1	Bakery, Confectionery & Barista	IC	18	7	25	72.0
2	Bartending	IC	8	17	25	32.0
3	Fast Food Production	IC	9	16	25	36.0
4	Graphic and Design	IC	12	13	25	48.0
5	Music Making and Production	IC	2	23	25	8.0
6	Photography Design and Editing	IC	12	13	25	48.0
7	Video Making and Content Creation	IC	4	21	25	16.0
8	Web Design	IC	12	13	25	48.0
	Total		77	123	200	38.5

Critical Capability Development

Human Resource Development (HRD) is a critical concern for improving the performance and productivity of the workforce in the country, as Bhutanese firms are particularly in need of upskilling and reskilling their employees. Therefore, the Critical Capability Development (CCD) program is a training and development intervention aimed at enhancing the performance and productivity of the workforce in different economic sectors. The CCD program is provided in the form of long-term and short-term training, both within and outside the country, with the intention to support continuous learning and to enhance the skills and knowledge of individuals in response to changing environments and new developments.

The main objective of the program is to enhance the productivity and performance of the workforce engaged in different priority sectors through effective and relevant reskilling and upskilling opportunities. The main target for this program is the workforce engaged in different economic sectors outside the civil service sector.

In 2023, the primary source of implementing CCD was through the fellowship/scholarship offers received from various bilateral and multilateral donors. Some vital and regular long-term fellowship offers include the Australia Awards Scholarship (AAS), the Nehru-Wangchuck Scholarship offered by the Government of India, and the Austrian Government's Diploma in Hospitality and Tourism.

Community Skills Training

The Special Skills Development Program (SSDP) and Village Skills Development Program (VSDP) are regular alternative skills programs implemented by the DWPSD. The SSDP was initiated under the Royal Command in 1996 with the objective of skilling armed forces in vocational skills so that they can generate income upon retirement from their service. The program later expanded to other special groups such as differently-abled individuals, juveniles, delinquents, monks/nuns, prisoners, disbanded gang members, and village youths. While the focus in the 9th FYP was on juvenile and delinquent groups with support provided to the Draktsho Vocational Institute (which was under the administration of the Youth Development Fund at that time), the focus shifted to the training of monks and nuns in the 10th FYP. The importance of skills training to improve the lives of villagers was recognized earlier on, with a Royal Command received in 1984 to establish a separate program called the Village Skills Development Program (VSDP) to provide skills development training for the villagers. The objective of the VSDP is to enhance community participation in local development activities through the provision of relevant skills. The program also provides avenues for villagers to participate in income generation activities once skilled. Both SSDP and VSDP are implemented as part of the community skills development initiative.

In 2023, a total of 31 trainings including tailoring, bakery & confectionery, carpentry, house wiring, hair dressing and others were implemented for 741 beneficiaries out of which 58 percent were female candidates. SSDP and VSDP were implemented in 13 different dzongkhags as indicated in the following table.

Table 2.22: SSDP and VSDP programs implemented in 2023

SN	Training Title	Dzongkhag	Program	Total	Female %
1	Advance Tailoring	Thimphu	SSDP	20	85.0
2	Advance Tailoring (Gho)	Thimphu	SSDP	9	88.9
3	Bakery and Confectionery	Wangdue Phodrang	SSDP	27	74.1
4	Basic House Wiring	Mongar	SSDP	20	10.0
5	Basic House Wiring	Punakha	SSDP	32	18.8
6	Basic Tailoring	Gasa	SSDP	14	85.7
7	Basic Tailoring	Mongar	SSDP	20	0.0
8	Basic Tailoring	Thimphu	SSDP	62	90.3
9	Basic Tailoring	Wangdue Phodrang	SSDP	10	100.0
10	Home Appliance Repair and Maintenance	Chhukha	SSDP	20	0.0
11	Tailoring	Pemagatshel	SSDP	17	0.0
12	Tailoring	Thimphu	SSDP	13	84.6
13	Tailoring	Wangdue Phodrang	SSDP	21	95.2
14	Bakery and Confectionery	Zhemgang	VSDP	39	97.4
15	Basic Carpentry	Pemagatshel	VSDP	20	0.0
16	Basic Tailoring	Dagana	VSDP	91	89.0
17	Basic Tailoring	Thimphu	VSDP	15	86.7
18	Basic Tailoring	Trashigang	VSDP	35	94.3
19	Basic Tailoring	Zhemgang	VSDP	20	90.0
20	Blacksmith	Dagana	VSDP	9	11.1
21	Culinary Arts	Haa	VSDP	27	44.4
22	Culinary Arts	Thimphu	VSDP	19	36.8
23	Domestic House Wiring	Lhuentse	VSDP	24	20.8
24	Domestic House Wiring	Punakha	VSDP	37	13.5
25	Domestic House Wiring	Sarpang	VSDP	26	7.7
26	Food Product Development	Zhemgang	VSDP	10	80.0
27	Furniture Making	Sarpang	VSDP	6	0.0
28	Hair Dressing	Zhemgang	VSDP	17	94.1
29	Home Care Giver	Thimphu	VSDP	8	100.0
30	Hor Weaving	Wangdue Phodrang	VSDP	18	100.0
31	Plumbing	Chhukha	VSDP	35	8.6
Total				741	58.0

TVET Studies outside Bhutan

In recent years, an increasing number of Bhutanese have started to pursue TVET studies outside the country. There had been cases of unregulated activities by private individuals/entities catering to these groups, putting individuals at risk of getting scammed. Therefore, a need was felt to put in place a mechanism to register Training Consultancy and Placement Firms (TCPFs). These TCPFs in turn would provide a means through which

Bhutanese can avail TVET studies outside the country in a safe and transparent means.

The Regulation for the TCPFs came into effect in February 2022. The Regulation was mainly concerned with the promotion and establishment of TCPFs within the country and regulating Bhutanese pursuing TVET studies outside Bhutan. In particular, the Regulation aimed to:

- Provide clarity on the mechanism of registration and establishment of TCPFs in the country;
- Provide a means through which students can avail ex-country TVET studies in recognized institutions through TCPFs; and
- Enhance public-private partnership in TVET delivery.

The Regulation would apply to any ex-country TVET studies implemented by any individual(s)/entity(ies) in the country. TVET studies may be offered either at Certification or Diploma Level. Furthermore, any ex-country consultants or institutions interested in offering TVET studies to Bhutanese would be required to partner with any of the registered TCPFs.

However, in the beginning of 2023, with the establishment of Bhutan Qualifications and Professionals Certification Authority (BQPCA) under the MoESD, the regulation function was integrated under the TVET QC. Further, the Guideline for Education Consultancy and Placement Firm (ECPF) and TCPF Regulation has been amalgamated under the new Education and Training Consultancy and Placement Firm (ETCPF) regulation for ease for public service delivery.

In 2022, a total of 13 TCPFs were successfully approved and licenced. However, under the new mechanism, a total of 61 ETCPFs are currently registered in the country. These ETCPFs provide facilitation services for both higher education and TVET studies outside Bhutan.

TVET QUALITY INDICATORS

Infrastructure development

Infrastructure development is one of the means for enhancing the quality of TVET programs. Under the TVET reform plan, efforts are being made ‘to transform TVET into an attractive learning and career pathway’. Place transformation is an important component of the TVET reform process. The overall aspiration under place transformation is to ‘build TVET institutions that provide appealing, authentic, holistic and ICT enabled learning environment’. Therefore, DWPSD is currently carrying out various construction and augmentation works within the DWPSD administered institutes to increase enrolment capacity at any given point of time from the current 2,649 to 4,490 trainees. To this end, during the 12th FYP period, budget under the GOI-PTA Project and ADB were secured to carry out augmentation and infrastructure development works within the DWPSD administered institutes. The augmentation works will be continued in the 13th FYP through the new ADB and Gol projects.

Under the Gol PTA Project, following works have been carried out in the year 2023:

- Construction of river protection wall at TTI-Rangjung (500m long)
- Renovation and remodelling of existing infrastructures in TTI-Khuruthang, TTI- Chumey, TTI-Thimphu, TTI-Samthang, NIZC and CZC
- Phase II: Construction of Facility Technology workshop in TTI-Khuruthang
- Centralised solar hot water system and floor heating system in TTI-Chumey

Under the ADB funded STEP UP Project, following works have been carried out in the year 2023:

- Completion of new TVET institute in Serbithang, Thimphu
- Procurement and furnishing of TTIs with automobile and mechanical courses
- Procurement and furnishing of ICT lab with modern equipment.

The different construction and development works are part of developing an aesthetically appealing infrastructure and physical environment with sustainable and green features, building functionally authentic, engaging, and multi-use teaching and learning facilities, and creating smart learning spaces through the integration of ICT digital infrastructure. Place transformation is one of the key strategies to enhance the quality and attractiveness of TVET programs in the country.

Accredited TVET courses

The Bhutan Qualifications Framework (BQF) for the development, recognition, and award of qualifications in Bhutan was developed in 2012. With the establishment of BQPCA, the existing BQF was reviewed and updated in 2023. The BQF includes eight levels of qualifications across different education and training areas, such as school education, higher education, TVET, community education, and monastic education. The levels represent the amount of learning, the complexity of knowledge, skills, values, and their application required at each level.

The BQF certification ranges from level 1 to level 8. For the TVET component, the certification ranges from level 1 to level 7, with TVET pathways from certification to applied degree and post-degree programs as indicated in the following table.

BQF Level	TVET Certification	Certification	Knowledge level	Minimum Credit
8	None		Substantial in broad areas and in-depth in specialised subject areas	360
7	Master's Degree Postgraduate Diploma Postgraduate Certificate	Masters/ PGD/ PGC	Highly advanced or specialized	180 120 60
6	Applied Degree	Degree	Advanced theoretical and technical	260
5	Advanced Diploma	ND	Specialised theoretical, technical and operational	240/120

4	Diploma	ND	Broad theoretical, technical and operational	240
3	Certificate 3	NC3	Theoretical with some technical and operational processes	40
2	Certificate 2	NC2	Basic, factual and conceptual	40
1	Certificate 1	NC1	Foundational, every day and general	40

Each level of the BQF is further divided into four domains: knowledge, skills, values and applications. The framework also includes guidelines for the development of vocational qualifications, assessment and certification procedures, and quality assurance mechanisms. The BQF is intended to promote the recognition and portability of vocational qualifications within Bhutan and internationally. It is also designed to support the development of a skilled workforce that can contribute to the economic growth and development of Bhutan.

The implications of national certification are significant. For individuals, BQF certification provides formal recognition of their skills and competencies, which can lead to better employment opportunities, increased job security, and higher wages. It also helps individuals to identify areas where they need to improve their skills and competencies.

For employers, BQF certification provides a standardized measure of the skills and competencies of job candidates, which can help them to make informed hiring decisions. It also provides a way for employers to identify the training needs of their employees and to design training programs that address specific skills gaps.

For the TVET system as a whole, BQF certification helps to improve the quality and relevance of TVET programs, by setting standards for the competencies and skills that should be acquired through such programs. It also provides a way to monitor and evaluate the effectiveness of TVET programs, by tracking the progress of individuals who have completed them. Therefore, fostering BQF aligned TVET courses in the country is one of the mechanisms for the development of a skilled workforce and in improving the quality of TVET programs.

As indicated below, in 2023, a total of 31 BQF aligned TVET courses were implemented, mostly at NC2 and NC3 level. Only two ND level courses were implemented in 2023.

Table 3.1: List of accredited courses provided by DWPSD administered institutes

SN	Course Name	BVQF Level
1	Auto Electrician	NC2+NC3
2	Auto Mechanic	NC2+NC3
3	Automobile Painter	NC2
4	Backhoe Operator	NC2
5	Computer Hardware and Networking Technician	NC2
6	Construction Carpenter	NC2
7	Cultural Tour Guide	NC2
8	Domestic Electrician	NC2
9	Earthmoving Equipment Mechanic	NC2
10	Excavator Operator	NC2
11	Hair and Beauty Therapist	NC2
12	Heavy Auto Mechanic	NC2
13	Industry Electrical Technician	NC3
14	Jim-Zop	NC2
15	Lhadrip	NC2+NC3+ ND
16	Mason	NC2+NC3
17	Mechanical Fitter	NC2
18	Metal Art and Fabrication Technician	NC2
19	Panel Beater	NC2
20	Patrap	NC2+NC3+ ND
21	Plumber	NC2
22	Professional Driver	NC2
23	Refrigeration and Air Conditioning Technician	NC2
24	Shag-Zop	NC3
25	Transmission and Distribution Linemen	NC2
26	Trekking Guide	NC3
27	Troe-Zop	NC2+NC3
28	Tshem-Zop	NC2+NC3
29	Tshemdrup	NC2+NC3
30	Welder	NC2+NC3
31	Wooden Furniture Maker	NC2

As indicated in the following table, a total of 111 TVET courses are being offered by the DWPSD administered institutes. While 58 are at institute level certification, the others are accredited at NC or ND level. The details of these courses are provided in the annexure section of the report.

Table 3.2: Courses offered by DWPSD administered institutes by certification level

Institute	Non-Accredited	Accredited			Total
	Institute Certificate	NC2	NC3	National Diploma	
CZC	0	4	3	2	9
JWPTI	16	8	1	0	25
NIZC	7	2	5	0	14
RDTIC	11	0	0	0	11
RITH	3	0	0	0	3
TTI-C	6	4	1	0	11
TTI-K	8	5	0	0	13
TTI-R	2	4	1	0	7
TTI-S	4	7	1	0	12
TTI-T	1	4	1	0	6
Total	58	38	13	2	111

Quality Management System (QMS)

TVET Quality Management System (QMS) is implemented by the TVET-QC. The QMS is designed to ensure that TVET programs and services in Bhutan meet national quality standards and are responsive to the needs of the labour market. The TVET QMS Manual was reviewed in 2023. The revised manual includes the following components for QMS certification:

Planning: This process covers: Institute Vision, Mission and Objectives; Institute Quality Policy; Institute Strategic Plans; and Annual Operational Plans.

People: This process covers: Management Staff; Teaching Staff; Internal Quality Auditor; and External subject experts.

Product: This process covers: Curriculum Development and Revision; Course diversification and planning; and Research and innovation.

Place: This process covers: Administrative Facilities; Authentic and engaging Training and learning facilities; Trainees support services and facilities; and Security and Safety Facilities.

Process: This process covers: Training Delivery; Assessment & Certification; Monitoring and Evaluation; Institute- Industry Linkage; Administration & Management; and Internal Quality Audit & Improvement.

As per the revised QMS Manual, in each process, institute must secure a minimum of 80 percent to qualify for QMS certification. The following nine institutes have QMS certification, which accounts for only 6.6 percent of the overall TVET institutes in the country.

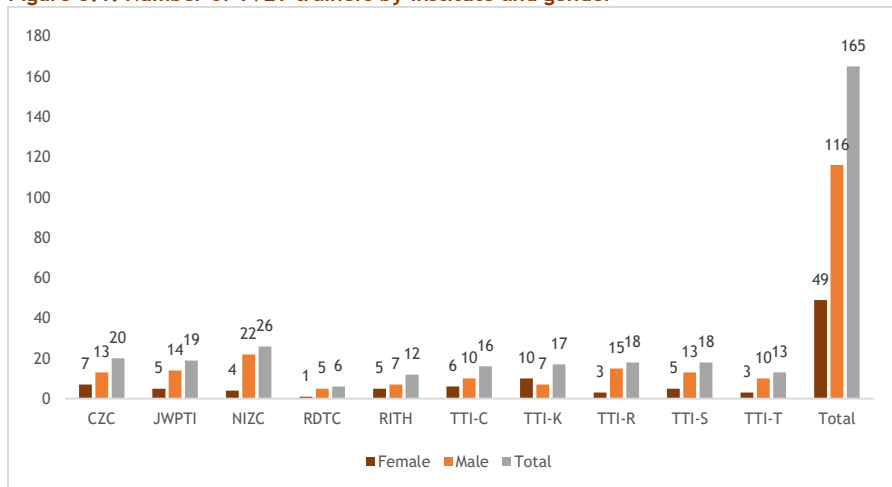
1. CZC	QMS Certified
2. NIZC	QMS Certified
3. JWPTI	QMS Certified
4. TTI-C	QMS Certified
5. TTI-K	QMS Certified
6. TTI-R	QMS Certified
7. TTI-S	QMS Certified
8. TTI-T	QMS Certified
9. RITH	QMS Certified

TVET Trainers

Understanding the profile of TVET trainers is important to assess TVET quality because trainers play a critical role in delivering effective TVET programs. Trainers are responsible for designing and delivering training programs, creating instructional materials, and assessing trainees' progress, among other things. Therefore, the quality of trainers has a direct impact on the quality of TVET programs.

Some of the key reasons why understanding the profile of TVET trainers is important includes, relevant skills and experience, which can bring valuable practical knowledge and skills to their teaching; and Pedagogical Skills to create engaging and effective learning experiences for the trainees. As indicated in the following figure, under the DWPSD administered institutes, there are a total of 165 TVET trainers of which 116 are male and 49 are female.

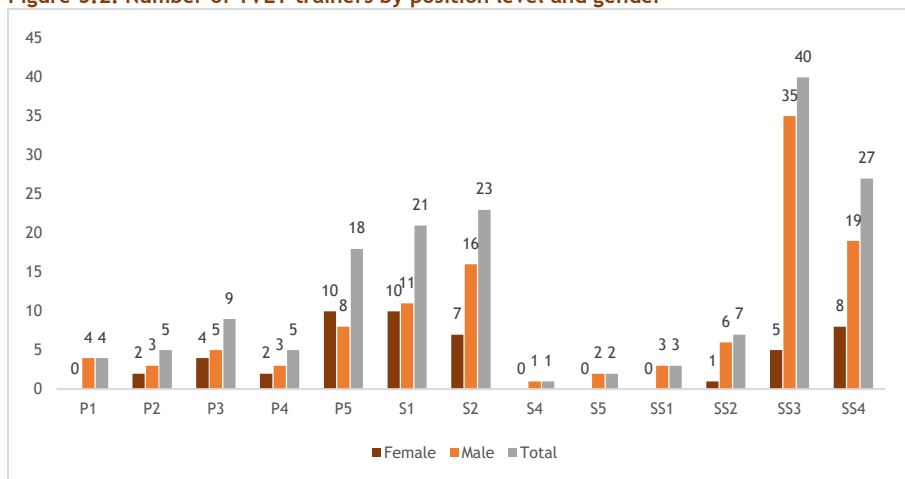
Figure 3.1: Number of TVET trainers by institute and gender



Most of the TVET trainers under the DWPSD administered institutes are recruited at S level as indicated in the following figure. This is mainly because the majority of TVET courses are offered at NC level, requiring a trainer with diploma level qualification. However, with the introduction of more ND level courses in the future, the institutes will require those with higher levels of education or qualification.

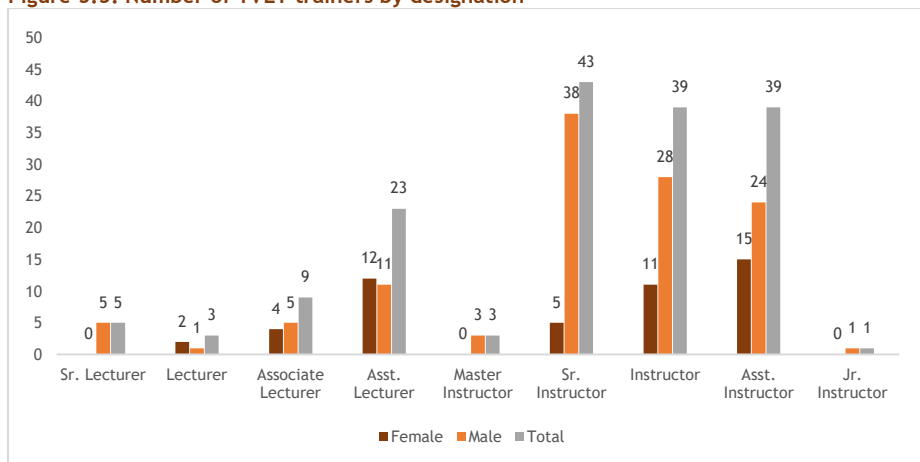
Currently, the DWPSD administered institutes have 18 P level female trainers and 23 P level male trainers.

Figure 3.2: Number of TVET trainers by position level and gender



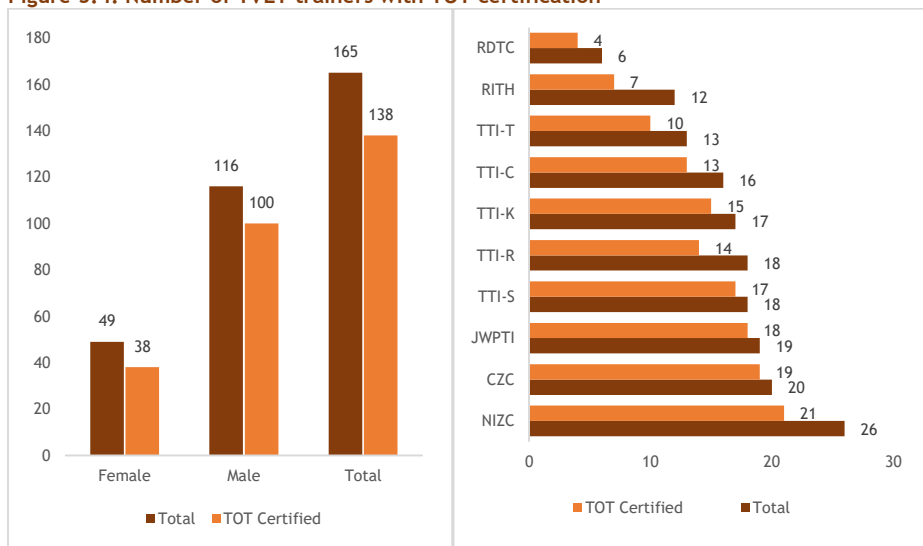
TVET trainers with diploma level qualification are recruited under ‘instructor’ category and those with higher education are recruited at ‘lecturer’ category. Majority of the TVET instructors working within the DWPSD administered institutes fall either under the senior instructor or instructor category.

Figure 3.3: Number of TVET trainers by designation



Training of Trainers (TOT) pedagogy/andragogy is a mandatory qualification requirement for all TVET trainers, especially for those TVET trainers working in the DWPSD administered institutes. The TTTRC, established under the DWPSD is tasked with the skills and qualification upgradation of all TVET trainers, especially those under the DWPSD administered institutes. All TOT programs are now being conducted in the TTTRC facility. As indicated in the following two figures, most of the TVET trainers in the DWPSD administered institutes are TOT certified. Out of 165 TVET trainers, 138 are TOT certified, which accounts for 83.6 percent of the total TVET trainers.

Figure 3.4: Number of TVET trainers with TOT certification



International Master Trainers

With the TVET reform plan in place and with funding support from the SDP program, the DWPSD initiated recruitment of international master trainers for implementation of training in different areas starting from 2021. In 2023, a total 5 female and 14 male international master trainers were recruited in delivering different courses in the DWPSD administered institutes.

Figure 3.5: Number of master trainers (by country) recruited in 2023

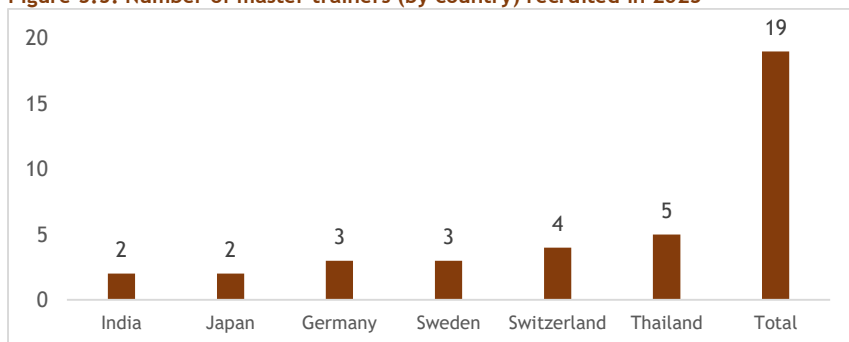
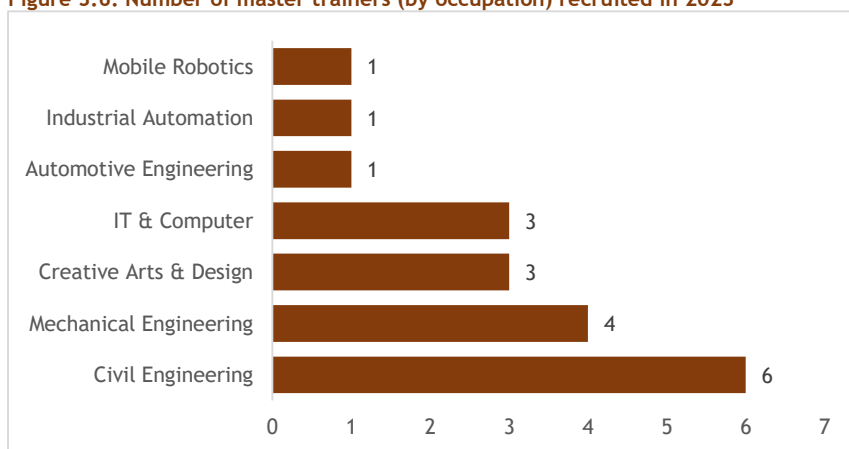


Figure 3.6: Number of master trainers (by occupation) recruited in 2023



TVET Curriculum review and development

As the job market evolves, there is a growing need to develop new TVET programs and curricula that meet the changing demands of the labour market. This means that TVET institutes must adapt to these changes by creating new programs that reflect the latest industry trends, technologies, and practices. Additionally, it is important to review existing TVET curricula regularly to ensure that they remain relevant and up-to-date. As industries evolve, the skills and knowledge required by workers also change. This means that existing TVET programs may no longer be sufficient to meet the needs of the labour market. By reviewing and updating these programs,

TVET institutes can ensure that graduates are equipped with the skills and knowledge required by employers.

Developing new TVET curricula and reviewing existing programs is one of the means for enhancing the quality of training provided by TVET institutes. As new technologies and practices emerge, TVET institutes must adapt their curricula to reflect these changes. This ensures that trainees receive skills and training that is of high quality and meets industry standards. In turn, this leads to a better-prepared workforce that is equipped to meet the demands of the labour market and contribute to the growth and development of the economy.

In 2023, the DWPSD developed 21 new curriculum and revised 16 existing curriculums as shown in the following tables.

Table 3.3: List of new TVET curriculum developed in 2023

SN	Curriculum	Certification Level	Status	Category
1	Food Processing Technician	NC2	New	National Certification
2	Hair and Beauty Therapist	NC2	New	National Certification
3	Heavy Earth Moving Equipment Operation (Backhoe Loader)	NC2	New	National Certification
4	Upholstery	NC2	New	National Certification
5	Computer Hardware and Networking	NC3	New	National Certification
6	Automobile Workshop Supervisor	National Diploma	New	Diploma
7	Cyber and Network Security	National Diploma	New	Diploma
8	Advance Fashion Design	Institute Certificate	New	Short Course
9	Bakery and Confectionery	Institute Certificate	New	Short Course
10	Bartender	Institute Certificate	New	Short Course
11	Biomedical engineering	Institute Certificate	New	Short Course
12	Cane and Bamboo Art Design and Development	Institute Certificate	New	Short Course
13	Contemporary Sculpture	Institute Certificate	New	Short Course
14	Culinary arts	Institute Certificate	New	Short Course
15	Food and Beverages	Institute Certificate	New	Short Course
16	Medicinal and aromatic plant and spices	Institute Certificate	New	Short Course
17	Mobile Application development	Institute Certificate	New	Short Course
18	Mobile robotics	Institute Certificate	New	Short Course
19	Orchid Culture	Institute Certificate	New	Short Course
20	Road Construction	Institute Certificate	New	Short Course
21	Western garment Tailoring	Institute Certificate	New	Short Course

Table 3.4: List of existing TVET curriculum revised in 2023

SN	Curriculum	Certification Level	Status	Category
1	Automobile Mechanic	NC2	Revised	National Certification
2	Heavy Vehicle Driver	NC2	Revised	National Certification
3	Shingtshoen	NC2	Revised	National Certification
4	Lhadri	NC3	Revised	National Certification
5	Jimzo	NC2	Revised	National Certification
6	Jimzo	NC3	Revised	National Certification
7	Excavator Operator	NC2	Revised	National Certification
8	Welding	NC2	Revised	National Certification
9	Welding	NC3	Revised	National Certification
10	Construction Carpentry	NC2	Revised	National Certification
11	Transmission and Distribution Technician	NC2	Revised	National Certification
12	Masonry	NC2	Revised	National Certification
13	Masonry	NC3	Revised	National Certification
14	Dzongkha Curriculum (Soft skills)	NA	Revised	Soft Skills
15	ICT Curriculum	NA	Revised	Soft Skills
16	Wooden Furniture Making	NC2	Revised	National Certification

National Competency Standards review and development

National Competency Standards (NCS) are a set of guidelines that outline the knowledge, skills, and competencies required for a specific job or occupation. These standards are developed by industry experts and stakeholders, in collaboration with educational and training institutions, to ensure that graduates of TVET programs have the necessary skills to perform their job effectively. The standards cover a wide range of occupations, from traditional trades such as plumbing and carpentry, to emerging industries such as renewable energy and digital technology.

The NCS provide a framework for designing and delivering effective training programs that meet the needs of both employers and learners. By aligning the curriculum with the NCS, training providers can ensure that their graduates are equipped with the skills and knowledge required by the industry. This, in turn, improves the employability of graduates and supports the development of a skilled workforce. The standards also provide a basis for assessing the performance of individuals in a particular job or occupation, allowing for the recognition of prior learning and the establishment of clear career pathways.

As industries evolve and new technologies emerge, the skills and knowledge required by workers in those industries also change. To ensure that TVET graduates are equipped with the most relevant and up-to-date skills, the occupational standards are periodically reviewed and updated. And with growing development in the economy and emergence of new jobs and opportunities, new NCS are developed. As such, occupational standards are the foundation to a design of any TVET courses.

As indicated in the following table, in 2023, a total of 4 new standards were developed and a total of 12 standards were reviewed. New standards were developed for career counsellor, construction electrician, graphic designer, and landscape horticulturist. Whereas standards were reviewed for construction carpenter, cultural tour guide, excavator operator and other occupations listed in the subsequent table.

Table 3.5: List of new NCS developed in 2023

SN	NCS	Certificate Level	Status	Year
1	Career Counsellor	NC	New	2023
2	Construction Electrician	NC	New	2023
3	Graphic Designer	NC	New	2023
4	Landscape Horticulturist	NC	New	2023

Table 3.6: List of existing NCS revised in 2023

SN	NCS	Certificate Level	Status	Year
1	Construction Carpenter	NC	Revised	2023
2	Cultural Tour Guide	NC	Revised	2023
3	Excavator Operator	NC	Revised	2023
4	Mason	NC	Revised	2023
5	Patra	NC	Revised	2023
6	Patra	NC	Revised	2023
7	Plumber	NC	Revised	2023
8	Shagzo	NC	Revised	2023
9	Troezo	NC	Revised	2023
10	Troezo	NC	Revised	2023
11	Tshemzo	NC	Revised	2023
12	Wooden Furniture Maker(ADB Fund)	NC	Revised	2023

Trainee Feedback on TVET Training and Facilities

The rapid assessment survey was integrated on the TVET-MIS in July 2023. The survey is automatically sent out from the MIS upon graduation from any TVET training conducted in the DWPSD administered institutes. The survey collects data and information on graduates' feedback on training, facilities, trainers, employment perception among other things which are critical for understanding the quality of training delivery. The graduate feedback on trainer, course content, and training facilities in this section is extracted from the rapid assessment survey conducted for the 2022 graduate cohort. A TVET Tracer Report (2022 graduate cohort) was published in January 2024, which provides comprehensive results and findings from the survey.

As indicated in the following table, the graduate feedback on the theoretical, practical and entrepreneurship learning component is fairly high with more than 75 percent stating that it was either good or very good. Considering the average feedback on some aspects of the course content, there is a need to improve the quality of these components. On an average, 77.5 percent rated either good or very good on the different aspects of course content.

Table 3.7: TVET graduate assessment on the overall course content (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	1.3	1.5	17.1	43.8	36.3
Practical component	1.2	2.4	13.6	37.9	44.9
On-the-job-training	4.9	4.2	18.1	39.7	33.1
Entrepreneurship and self-employment training	2.3	3.2	15.5	43.1	35.9
Career Counselling services	2.0	4.1	21.1	45.5	27.3

Graduates feedback was collected on the TVET trainers, more specifically on the quality of training delivery in theoretical and practical components, use of instructional materials and aids, and availability of trainers for any course related consultation and feedback. As indicated in the following table, the graduate feedback on the quality of the trainer is very positive, with more than 75 percent assessing the trainer either good or very good in all the four parameters. On an average, 80.5 percent rated either good or very good on the different aspects of trainer in training delivery.

Table 3.8: TVET graduate feedback on trainers in training delivery (percent)

Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	1.0	2.4	12.2	41.1	43.3
Quality of training in Practical Component	1.3	1.8	14.6	43.9	38.4
Use of Instructional Materials and Aids	1.6	4.1	16.4	42.9	35.0
Availability for course related consultation and feedback	1.3	3.3	18.1	49.4	27.9

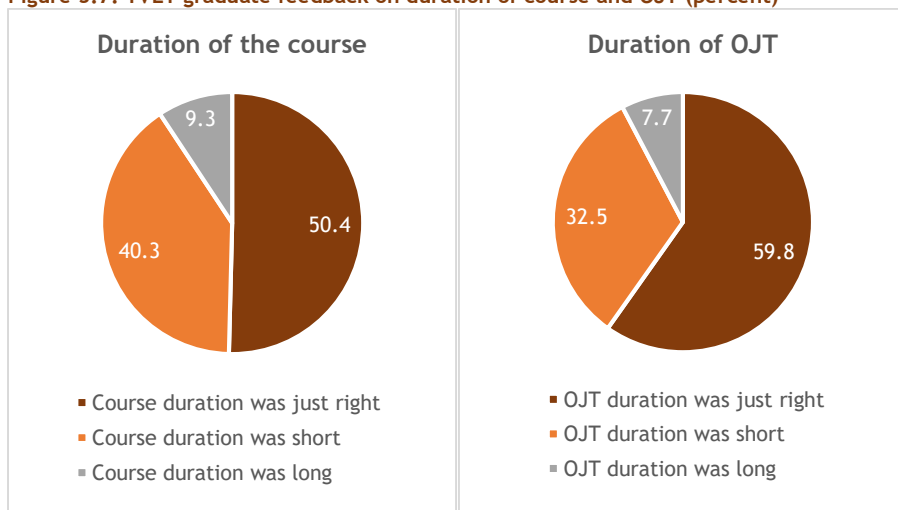
Through the TVET tracer, graduate feedback was collected on the physical space and infrastructures within the institutes. Graduates were asked to assess the quality of classroom, quality of practical training areas, training tools and equipment, computer lab facilities, library and resource centres, accommodation and hostel facilities, dining and mess facilities, internet connectivity, among other parameters highlighted in the following table. On an average, 64 percent rated either good or very good on the different aspects of training facilities.

Table 3.9: TVET graduate assessment of training facilities (percent)

Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	1.7	3.6	18.2	41.2	35.4
Quality of Practical training areas	1.7	3.4	19.2	41.0	34.7
Training tools and equipment	3.1	6.4	18.7	38.3	33.5
Computer laboratories	5.9	9.2	24.9	39.7	20.4
Library and/or resource centre	4.6	9.0	26.9	39.0	20.6
Accommodation/Hostels	3.8	5.2	20.5	39.9	30.5
Dining/Mess	4.1	7.8	25.4	39.8	22.9
Internet Connectivity	8.9	13.5	26.3	33.9	17.4
Transportation facilities	7.2	13.3	27.5	36.2	15.8
Sports and recreational facilities	8.2	12.3	27.1	34.9	17.5
Occupational Health and Safety (OHS)	2.0	4.0	22.5	43.3	28.1

Graduates were also asked to provide their assessment on the adequacy of duration for the overall course and the OJT component, for which they were attached with the employer/industry. More than 50 percent of the graduates said that both the duration of the course and OJT are adequate as indicated in the following figure. However, more than 30 percent said that the duration was not adequate and a small percentage said it was longer than needed.

Figure 3.7: TVET graduate feedback on duration of course and OJT (percent)



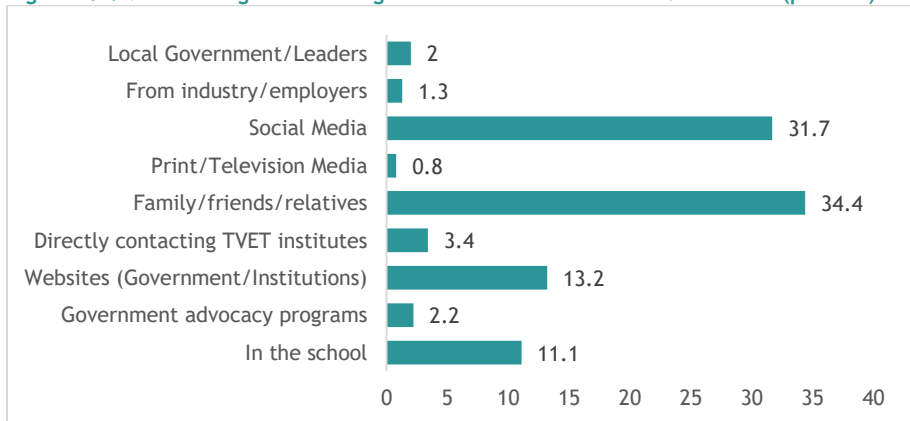
TVET RELEVANCE INDICATORS

Similar to the rapid assessment survey, the tracer survey is sent out by the TVET-MIS upon graduation from any TVET program offered by DWPSD administered institutes. A total of two tracers have been integrated on the MIS. The first tracer is sent out from the MIS one year after graduation and the second tracer is sent out after two years of graduation. The first tracer collects data and information on the employment outcome while the latter collects employment status and impact level information.

The results presented in this section provide tracer information for the 2022 graduate cohort. A TVET Tracer Report (2022 graduate cohort) was published in January 2024, which provides comprehensive results and findings from the tracer survey.

Graduates were asked to provide details on how they first heard about the TVET course they were enrolled in. As shown in the following figure, 34.4 percent said that they received the information first from their family, friends or relatives. 31.7 percent said they first heard about the program through social media platforms. Understanding where graduates first learn about TVET courses can inform targeted outreach efforts.

Figure 4.1: Means though which the graduates first heard about TVET course (percent)



Employment Outcome

The employment outcomes for TVET graduates can vary depending on factors such as the quality of training, the relevance of skills to the labour market, and the overall economic conditions. However, there are several factors that suggest TVET graduates have favourable employment outcomes.

TVET programs are designed to equip students with practical skills that are in demand by employers. As a result, TVET graduates are generally viewed as more job-ready than those with purely academic qualifications. This can translate to a higher likelihood of finding employment upon graduation. Furthermore, many TVET programs have partnerships with industry and employers, which can lead to better job placement rates and higher starting salaries for graduates.

TVET graduates are often in demand in sectors that are key drivers of economic growth, such as manufacturing, construction, and technology. These industries require a workforce with specific technical skills, which TVET graduates are well-positioned to provide. This means that TVET graduates can often find employment in high-growth sectors, with opportunities for career advancement and long-term job stability.

TVET graduates are often able to start their own businesses or become self-employed. The practical skills and competencies gained through TVET programs can be applied to a wide range of entrepreneurial ventures, from starting a small business to becoming a freelance contractor. This can provide greater flexibility and autonomy for TVET graduates, as well as the potential for higher earnings and job satisfaction.

While the employment outcomes for TVET graduates can vary, there are several factors that suggest favourable outcomes. TVET programs are designed to provide practical skills that are in demand by employers, and many have partnerships with industry and employers that can lead to better job placement rates and higher salaries. Additionally, TVET graduates are often in demand in key growth sectors and have the potential to start their own businesses or become self-employed. Overall, TVET can be a valuable pathway for those seeking employment and career opportunities.

Table 4.1: Duration taken to secure first job after graduation by gender (percent)

Duration to secure first job	Percent		
	Female	Male	Total
Less than 3 months	38.44	42.5	41.0
3-6 months	9.12	9.7	9.5
7-12 months	6.84	7.4	7.2
More than 1 year	4.56	3.4	3.8
I have not been employed since graduation	41.04	37.0	38.5
Total	100	100	100
Employment within one year of graduation	54.4	59.6	57.7

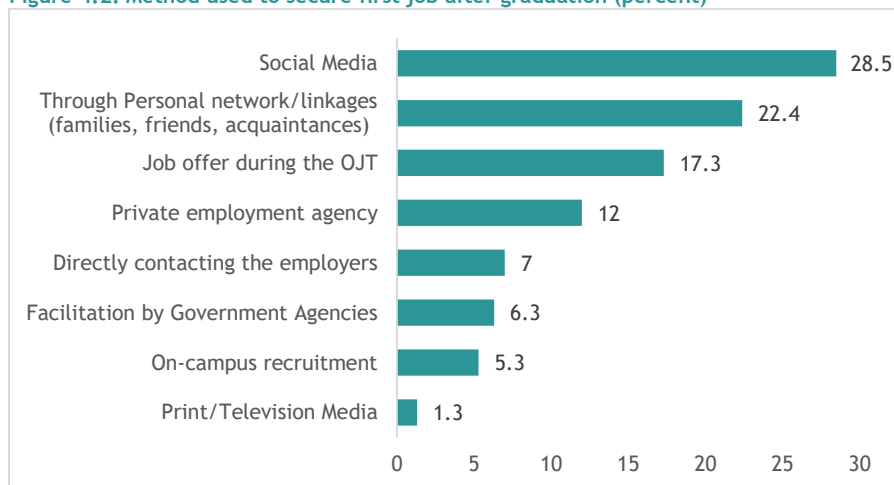
Table 4.2: Duration taken to secure first job after graduation by certification (percent)

Duration to secure first job	Percent		
	NC	ND	IC
Less than 3 months	52.9	77.8	30.5
3-6 months	10.8	0.0	9.6
7-12 months	8.8	0.0	6.9
More than 1 year	3.7	0.0	4.3
I have not been employed since graduation	23.7	22.2	48.8
Total	100	100	100
Employment within one year of graduation	72.5	77.8	47.0

Table 4.3: Duration taken to secure first job after graduation by institute (percent)

Duration to secure first job	CZC	JWPTI	NIZC	RDTG	RITH	TTI-C	TTI-K	TTI-R	TTI-S	TTI-T
Less than 3 months	56.5	33.3	40.0	21.7	78.0	31.0	32.5	43.7	45.5	94.1
3-6 months	8.1	9.2	18.2	1.2	3.4	9.5	10.6	10.1	16.9	5.9
7-12 months	6.5	7.8	7.3	3.6	1.7	8.3	14.6	6.7	3.9	0.0
More than 1 year	3.2	4.6	1.8	6.0	0.0	4.8	4.9	2.5	5.2	0.0
I have not been employed since graduation	25.8	45.1	32.7	67.5	16.9	46.4	37.4	37.0	28.6	0.0
Total	100	100	100	100	100	100	100	100	100	100
Employment within one year of graduation	71.0	50.3	65.5	26.5	83.1	48.8	57.7	60.5	66.2	100.0

Figure 4.2: Method used to secure first job after graduation (percent)



Current Employment

While 61.5 percent of the graduates were able to secure a job at some point of time after graduation, only 48 percent said that they are currently employed. 40.4 percent are employed with other firms while 7.6 percent are self-employed. The current unemployment among female counterparts is slightly higher than that of male counterparts with 52.8 percent of the females saying that they are not employed.

Table 4.4: Current employment status by gender (percent)

Current employment status	Female	Male	Total
Employed	40.1	40.6	40.4
Self-employed/ freelance/ own-business	7.2	7.8	7.6
Unemployed	52.8	51.6	52.0
Total	100	100	100

The current employment is highest for TTI-T with 82.4 percent employed. The percentage for self-employment is higher for CZC and RDTC graduates in comparison to other institutes. The current unemployment is more than 50 percent for JWPTI, RDTC, RITH, and TTI-C.

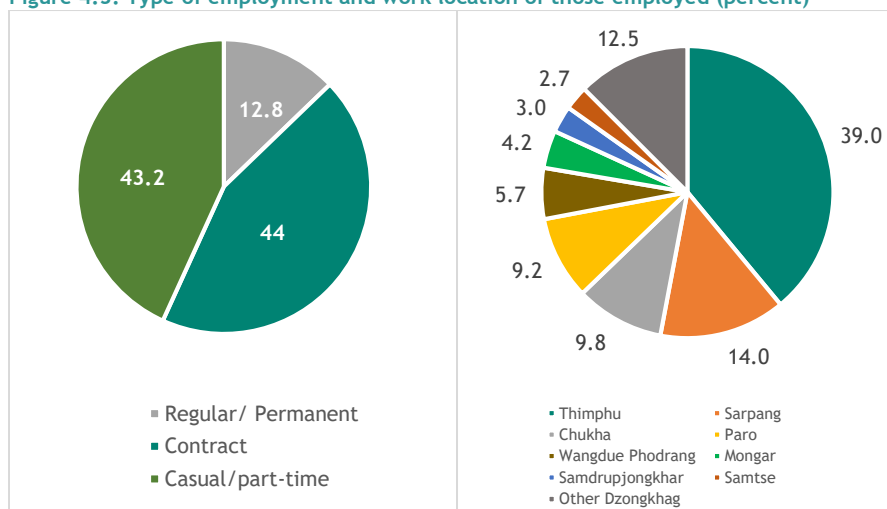
Table 4.5: Current employment status by institute (percent)

Current employment status	CZC	JWPTI	NIZC	RDTG	RITH	TTI-C	TTI-K	TTI-R	TTI-S	TTI-T
Employed	35.5	26.8	50.9	20.5	40.7	38.1	50.4	46.2	53.2	82.4
Self-employed/ freelance/own- business	16.1	8.5	7.3	13.3	3.4	8.3	4.1	8.4	1.3	0.0
Unemployed	48.4	64.7	41.8	66.3	55.9	53.6	45.5	45.4	45.5	17.6
Total	100	100	100	100	100	100	100	100	100	100

During the survey, the graduates were also asked to provide information on the type of employment and location of their current job, especially for those working with other firms. As indicated in the following two figures, 44 percent of the employed are in contract jobs while 43.2 percent are in casual/part-time jobs. Only 12.8 are in regular employment.

Majority of those employed are working in the capital (39 percent) followed by Sarpang (14 percent), Chukha (9.8 percent) and Paro (9.2 percent) dzongkhags.

Figure 4.3: Type of employment and work location of those employed (percent)



Use of skills and competencies at work

Through the tracer survey, graduates who said that they are currently working were asked to provide their assessment of the use of skills and competencies gained from the TVET course they attended in their current work place. From a scale of ‘strongly disagree’ to ‘strongly agree’, they were asked if they are able to use the skills learned from the course to their current area of work, if it was easy for them to get a job with the skills they acquired from the course, and if there were enough work opportunities after graduation. The results are presented in the following table. While the percentage of current employment is quite low, a very high percentage of those who are employed are able to use the skills gained from the TVET course to find employment and apply it in their workplace.

Table 4.6: Assessment on benefit of skills/training by those employed (percent)

Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
I am able to use the skills I've gained from the course in my job	10.1	4.2	16.1	26.8	42.9	100
It was easy to get a job with the skills I acquired from the course	9.2	8.3	23.5	24.7	34.2	100
There were enough work opportunities available after graduation	11.0	11.0	29.8	21.1	27.1	100

Similarly, graduates who said that they are currently self-employed were asked to provide their assessment of use of skills and competencies gained from the TVET course in their current business. They were asked if they are able to use the skills learned from the course to their current business, if it was easy for them to set up their own business after graduation, and if there were enough business opportunities after graduation. While the results show that 66.7 percent agree that they are able to use the skills gained from the TVET course to their business, 57.2 percent agree that it was easy to set-up their own business. However, only 44.5 percent of the self-employed agree that there are enough business opportunities after graduation.

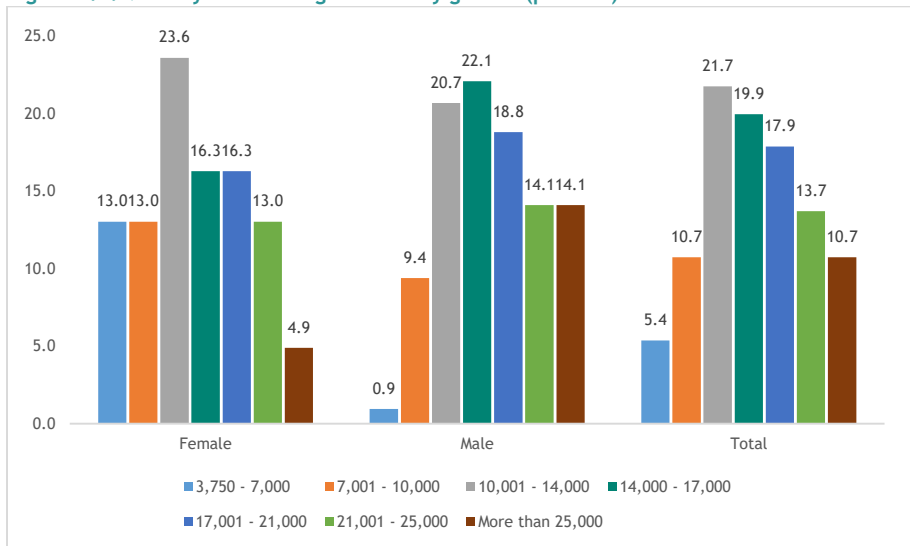
Table 4.7: Assessment on benefit of skills/training by those self-employed (percent)

Statements (self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
I am able to use the skills I learned from my course to my current area of work	11.1	7.9	14.3	17.5	49.2	100
It was easy to setup my own business/work after graduation	17.5	4.8	20.6	17.5	39.7	100
There were enough business opportunities after graduation	19.0	7.9	28.6	17.5	27.0	100

Monthly income of graduates

Those who are currently employed were asked to provide details on their average monthly income. While the overall graduates have a monthly average income of about Nu. 20,840, female graduates are earning less in comparison to male graduates. On an average a female graduate has a monthly income of about Nu. 18,862 and male graduate has a monthly income of about Nu. 21,968. The figure below provides more details on the income bracket for both genders and the overall graduates. While most male graduates have an average monthly earning between Nu. 14,000 to Nu. 17,000, female graduates have an average monthly earning between Nu. 10,000 to Nu. 14,000.

Figure 4.4: Monthly income of graduates by gender (percent)



The average monthly income for a graduate who is self-employed is higher than for those who are employed with other firms. A self-employed graduate is able to secure a monthly earning of about Nu. 29,274 in comparison to a graduate employed with other firms, only who earns about Nu. 19,258. The following figure provides the monthly income brackets for the two groups. A higher proportion of self-employed graduates falls either in the lowest or the highest income bracket in comparison to those who are employed with other firms.

Figure 4.5: Monthly income of graduates for employed and self-employed (percent)



Profile of unemployed

A high proportion of the 2022 graduate cohort are unemployed (52.0 percent) as indicated in table 4.4. 52.8 percent of the female graduates and 51.6 percent of the male graduates said that they are currently unemployed. These individuals were asked to provide further details on the duration of unemployment, reasons for their current unemployment, and if they require any support to help them secure employment.

As indicated in the following table, of the total unemployed, 3.5 percent said that they were unemployed for more than 12 months and 63.3 percent said that they had not been employed since graduation.

Table 4.8: Duration of unemployment (percent)

Duration of unemployment	Female	Male	Total
Less than three months	18.5	26.6	23.6
3 to 6 months	3.7	6.3	5.3
7 to 11 months	3.7	4.8	4.4
More than 12 months	4.3	3.0	3.5
I have not been employed since graduation	69.8	59.4	63.3
Total	100	100	100

36.7 percent said that there is a lack of job opportunities in the labour market, 16.9 percent said that they could not find a job of their preference, and 5.3 percent recently left or lost their jobs. On a positive note, 7.6 percent are exploring to set up their own business, and 10.6 percent are taking up further studies. Additionally, approximately 10 percent indicated that their unemployment situation is circumstantial due to health, family, or other personal reasons. Meanwhile, 3 percent stated that they are not interested in working, and 10.2 percent are exploring training and employment opportunities overseas.

Table 4.9: Reasons for current unemployment (percent)

Reason for current unemployment	Female	Male	Total
Could not get the job of my preference	18.5	15.9	16.9
Exploring to set up my own business	4.3	9.6	7.6
Exploring/opting for overseas training/employment	11.7	9.2	10.2
Family issues/taking care of my family	9.9	4.8	6.7
Health-related reasons	0.6	0.7	0.7
I am currently not interested in working	3.1	3.0	3.0
Interested to take up further studies	9.3	11.4	10.6
Lack of Job opportunities	32.7	39.1	36.7
Marriage/reproductive roles	4.9	0.7	2.3
Recently left/lost job	4.9	5.5	5.3
Total	100	100	100

Those unemployed but actively seeking employment within the country were asked if they require any further support to help them secure employment. As indicated in the following table, the majority said they require additional skills training and employment facilitation support. Others highlighted the need for entrepreneurship knowledge and information for exploring self-employment opportunities and avenues.

Table 4.10: Support needed by those actively seeking employment (percent)

What support do you think will help you to get employment?	Number	Percent
Additional skills training	134	45.0
Employment facilitation support	121	40.6
Entrepreneurship knowledge/information	34	11.4
No help needed	9	3.0
Total	298	100

Employer Feedback on TVET graduates

The TVET Employer survey was conducted in Quarter 4 of 2023 using the employer-employee registration data available on the BLMIS. The survey was conducted for the first time through the TVET-MIS with the aim to collect data and information on employers' feedback on the performance of the TVET graduates working with them. Through this survey, employers were asked to provide their feedback on the technical skills and competencies of the TVET graduates, their ability to take up supervisory and managerial roles, and their ability to perform job roles and responsibilities. A total of 595 small, medium, and large-scale establishments responded to the survey out of which 59.5 percent hired TVET graduates. The TVET Employer Survey Report 2023 was published in December 2023.

This section provides information on the profile of employers employing TVET graduates, occupations of regular hire for TVET graduates, soft skills in demand, and general feedback from employers.

Table 4.11: Employers hiring TVET graduates by scale of establishment

Establishment	Total Respondent	Establishments hiring TVET graduates	Percent
Small	468	259	55.3
Medium	97	69	71.1
Large	30	26	86.7
Total	595	354	59.5

Figure 4.6: Employers hiring TVET graduates by sector

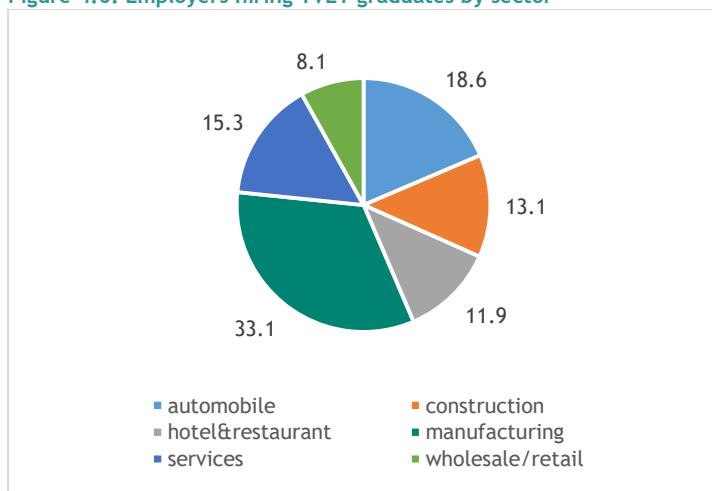
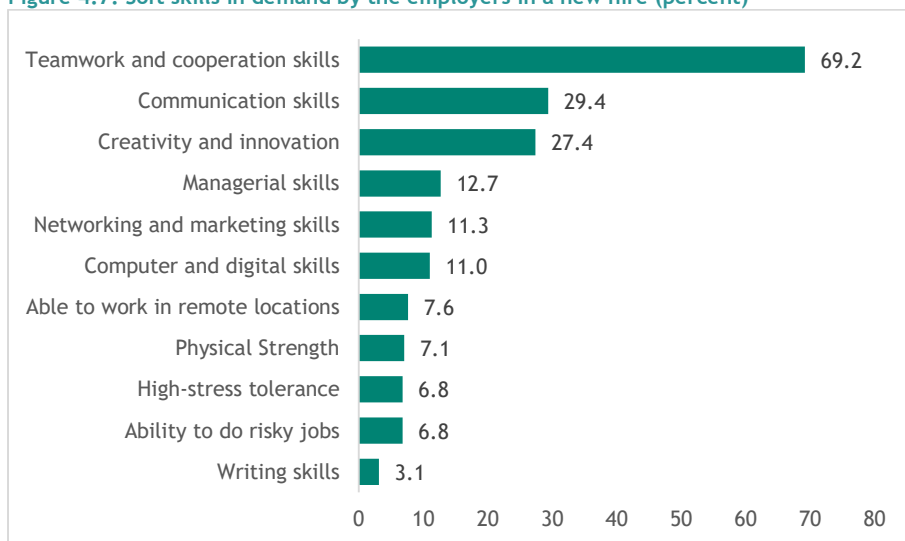


Table 4.12: Top 24 occupations of regular TVET graduate hire

1	Accountants	6	Auto Mechanic	11	Auto Electrician	16	Electrician	21	Automobile Painter
2	Welder	7	Carpenter	12	Chef	17	Cook	22	Mechanical Fitter
3	Baker	8	Civil Engineering Technician	13	Plumber	18	Mason	23	Computer Hardware & Networking Technician
4	Bartender	9	Electrical Mechanic	14	Housekeeping	19	Backhoe Operator	24	Food and Beverages Attendant (FNB)
5	ICT Technician	10	Construction Supervisor	15	Hotel Manager	20	Wooden Furniture Maker		

Figure 4.7: Soft skills in demand by the employers in a new hire (percent)



Note: Employers were asked to opt for two soft skills

As shown in the following table, 54.2 percent of the employers indicated that TVET graduates working with them have the technical skills and competencies and 47.2 percent indicated that they are able to take up supervisory and managerial roles. The subsequent table provides feedback from those employers employing graduates from the DWPSD administered institutes only.

Majority of the employers are interested in TVET partnerships. More than 75 percent of the employers indicated interest to accept TVET trainees for OJT, to participate in on-campus recruitment drives, and to partner with government TVET institutions to upskill their employees. Majority of employers are also interested in funding TVET initiatives and programs.

Table 4.13: Employer feedback on the TVET graduates

Skills	Highly Disagree	Disagree	Neutral	Agree	Highly Agree
They have the Technical Skills and Competencies	6.8	5.7	33.3	31.6	22.6
They are able to take up supervisory and managerial roles	7.1	11.9	33.9	30.8	16.4
They are good at performing job roles and responsibilities	5.9	7.9	30.5	37.0	18.6

Table 4.14: Employer feedback from those employing DWPSD institutes' graduates

Skills	Highly Disagree	Disagree	Neutral	Agree	Highly Agree
They have the Technical Skills and Competencies	6.4	4.7	34.8	34.8	19.5
They are able to take up supervisory and managerial roles	8.5	13.1	33.1	32.6	12.7
They are good at performing job roles and responsibilities	5.5	8.9	29.2	40.7	15.7

Table 4.15: Areas of TVET Collaboration and Partnerships

Areas	Number	Percent
Our organization is interested in accepting TVET trainees for on-the-job training (OJT)	307	86.7
Our organization is interested to participate in the on-campus recruitment of TVET graduates	276	78.0
Our organization would be interested to fund TVET courses beneficial to our business	215	60.7
Our organization would be interested to contribute to the Skills Development Fund	216	61.0
Our organization would be interested to partner with the government TVET Institutions to upskill our employees with TVET qualification	296	83.6

Industry linkage and partnership

TVET institutions, as well as the industry, can mutually benefit from TVET partnerships and linkages. For TVET institutions, these collaborations can help provide relevant skills training, increase student employability, contribute to the development of the economy, and keep them up-to-date with industry trends. For industry partners, these partnerships can help them access a pool of skilled workers, build relationships with institutions, and influence TVET programs geared toward industry needs. Therefore, the development of strong industry linkages and partnerships is crucial for the success of TVET institutions and the growth of industries.

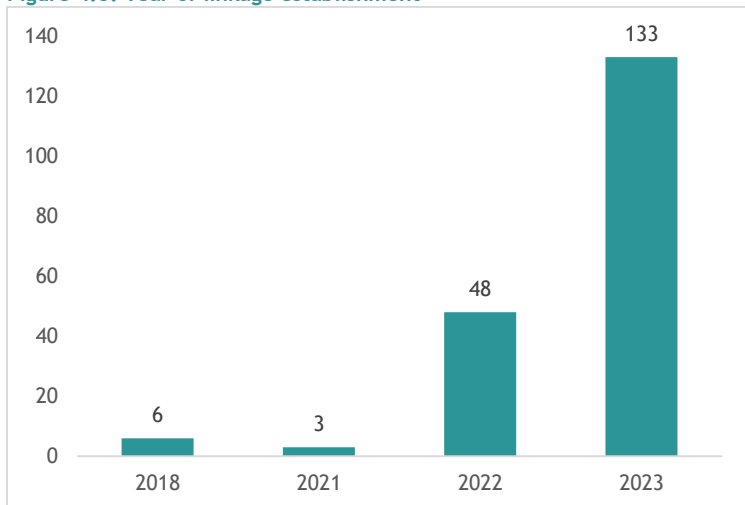
The institutions' management uses different methods to establish these partnerships, employing both formal and informal means. TVET institutions often consult with industry representatives, organize industry visits and guest lectures, conduct on-campus recruitment drives, and implement OJT components in partnership with these industries. The ten institutes have partnerships and linkages with 190 industries, the summary of which is provided in the following tables, with additional details available in the annexure section of this report. The subsequent figure indicates that most of these linkages were either created or renewed in 2023.

Currently, industry partnerships and linkages are primarily utilized for OJT and industrial visit purposes, which are key components of TVET course delivery. In a few cases, these linkages are also utilized for job placement. Therefore, there is scope for institutes not only to increase the number of industry partnerships but also to expand and diversify the areas of linkage. This could include stronger job placement initiatives, on-campus recruitment, industry feedback on the performance of TVET graduates, and gathering skills needs and other relevant areas to ensure that TVET programs remain aligned with industry needs.

Table 4.16: Number of industry linkages in 2022 and 2023

Institute	2022	2023
CZC	11	47
JWPTI	17	23
NIZC	11	11
RDTC	11	12
RITH	NA	2
TTI-C	14	9
TTI-K	2	5
TTI-R	41	24
TTI-S	53	33
TTI-T	24	24
Total	184	190

Figure 4.8: Year of linkage establishment



TVET GOVERNANCE INDICATORS

Effective and efficient governance is crucial for ensuring that TVET institutions are able to provide high-quality education and training to learners. TVET governance refers to the structures, policies, and processes that are in place to support the effective delivery of TVET programs. At the macro level, TVET governance includes policies and legal provisions that guide the development and implementation of TVET programs at the national level. It also includes the establishment of national institutions responsible for overseeing TVET, such as TVET councils and accreditation bodies, and the availability of national resources for TVET, such as funding and training materials.

At the institutional level, TVET governance includes aspects such as institutional autonomy, resource utilization, leadership, administration, decision-making processes, strategic management, TVET advocacy and image building, data management, research and innovation, trainee welfare, capacity building, project management, infrastructure development, and many other areas. Effective TVET governance at the institutional level is necessary for ensuring that TVET institutions have the resources and support needed to deliver high-quality programs and meet the needs of learners and the labour market.

While this section is limited to reporting statistics on TVET management staff, staff turnover, and TVET financing, it is important to recognize the critical role that effective TVET governance plays in supporting the success of TVET institutions. By investing in governance and financing, policymakers can create an environment that supports the development of skilled workers, promotes innovation, and contributes to sustainable economic growth. This can help ensure that TVET programs are responsive to the changing needs of learners and employers, and that they continue to provide high-quality education and training over the long term.

Human Resources

Human resources in the TVET sector are a crucial component in delivering quality training programs. Trainers, instructors, curriculum developers, program coordinators, administrators and different support staff all play vital roles in ensuring that the training provided meets the needs of students and the industry. The staff within the department and the institutes work together to design, develop, and deliver training programs that equip learners with the practical skills and knowledge they need to succeed in the workforce.

In the TVET sector, trainers and instructors are expected to have a deep understanding of the industry they are teaching in. They must be able to communicate effectively with learners, motivate them to learn, and adapt their teaching methods to the needs of individual learners. Additionally, curriculum developers are responsible for designing training materials and programs that are relevant and up-to-date. They must have an in-depth understanding of industry needs to ensure that learners are well-prepared for the workforce.

Administrators and managers in the TVET sector are responsible for managing the day-to-day operations of the training institute. They ensure that facilities are well-maintained, equipment is up-to-date, and programs are running smoothly. Additionally, they manage budgets and ensure that the institute is financially sustainable. Therefore, human resources within the different categories together play an essential role in effective and efficient delivery of TVET plans, programs and activities.

Within the MoESD, as indicated in the following figure, there are a total of 323 staff in different categories working in the DWPSD and DWPSD administered institutes. While a total of 288 staff are active, others are either transferred or on secondment, study leave or extraordinary leave.

The subsequent tables provide data on the human resources within the DWPSD and ten institutes by position level and job categories. Majority of the staff falls either in the TVET instructors/lecturers or program officer category. Program coordinators within the DWPSD typically look after program coordination and management, curriculum development, TVET regulation and other aspects of TVET planning, coordination and implementation.

Figure 5.1: Number of staff in the DWPSD and institutes

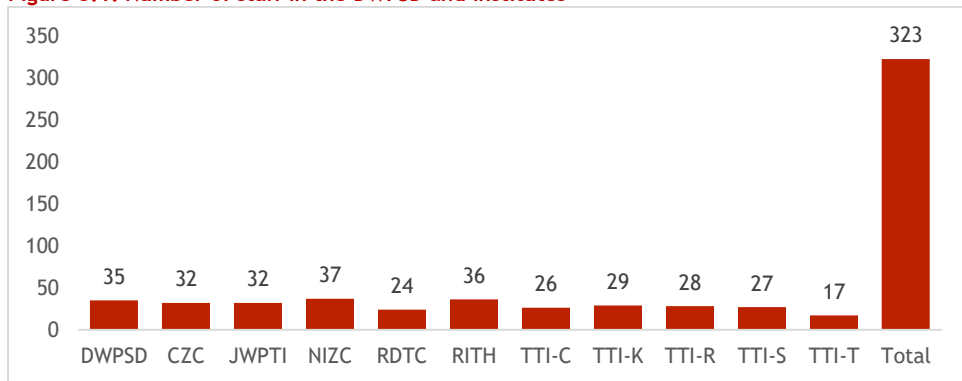


Figure 5.2: Number of staff by current status

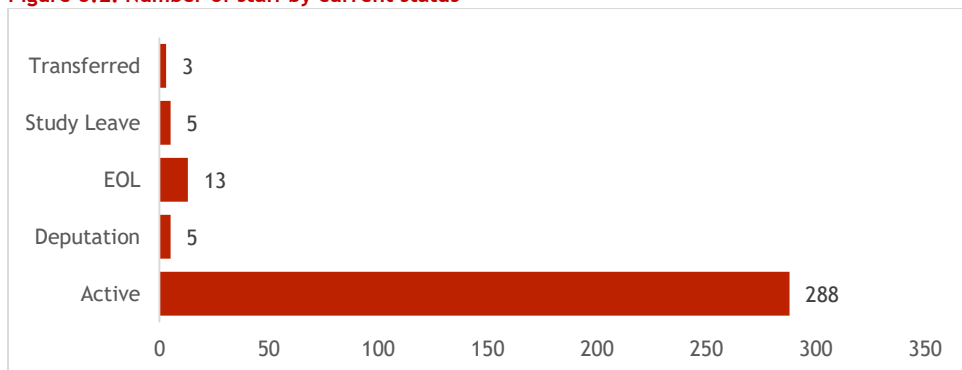


Table 5.1: Staff by position category in the DWPSD and institutes

SN	Department/Institute	Management and Professional	Support	Trainer	Total
1	DWPSD	28	3	4	35
2	CZC	1	11	20	32
3	JWPTI	0	13	19	32
4	NIZC	1	10	26	37
5	RDTA	1	17	6	24
6	RITH	1	23	12	36
7	TTI-C	1	9	16	26
8	TTI-K	1	11	17	29
9	TTI-R	1	9	18	28
10	TTI-S	0	9	18	27
11	TTI-T	1	3	13	17
	Total	36	118	169	323

Table 5.2: Staff by position level in the DWPSD and institutes

Level	CZC	DWPSD	JWPTI	NIZC	RDTCC	RITH	TTI-C	TTI-K	TTI-R	TTI-S	TTI-T	Total
ES	1	1	0	0	0	0	0	0	0	0	0	2
EX	0	1	0	0	0	0	0	0	0	0	0	1
ESP	1	1	3	1	9	5	0	1	1	1	1	24
GSP	4	0	3	3	2	7	5	4	2	3	0	34
O1-O4	2	0	3	3	3	3	2	2	2	1	1	22
P1-P5	2	29	5	2	2	11	8	6	7	2	3	77
S1-S5	11	2	12	8	3	7	7	8	9	11	5	83
SS	11	1	6	20	5	3	4	8	7	9	7	81
Total	32	35	32	37	24	36	26	29	28	27	17	323

Staff Turnover

Staff turnover refers to the rate at which employees leave an organization and are replaced by new hires. In the context of TVET institutions, staff turnover can have a significant impact on the quality and continuity of training programs. When experienced and knowledgeable staff members leave, it can disrupt the delivery of programs, reduce institutional knowledge, and lead to increased costs associated with recruitment and training. High staff turnover can also have a negative impact on the morale of remaining staff members, leading to reduced productivity and job satisfaction.

Reducing staff turnover in TVET institutions is therefore a key concern for the DWPSD and its institutes. Efforts are made to create a supportive work environment and ensuring good management practices within the institutes. However, it is important for TVET institutions to manage staff turnover effectively and to ensure that it does not have a negative impact on the delivery of training programs.

As per the HR recorded data, a total of 60 individuals were separated from the DWPSD and DWPSD administered institutes from 2019 to 2023. Majority of these separations were voluntary in nature. Very few fall under the category of early retirement or superannuation.

Table 5.3: Staff separation in the departments and institutes (2019 to 2023)

Department/ Institutes	2019	2020	2021	2022	2023	Total
DWPSD	3	2	0	4	2	11
JWPTI	1	0	1	2	1	5
NIZC	2	0	3	1	0	6
RDTC	4	2	1	2	0	9
TTIC	1	0	0	3	0	4
TTIK	1	2	0	3	2	8
TTIR	0	0	1	3	1	5
TTIS	0	0	2	3	0	5
TTIT	2	0	0	2	1	5
RITH	-	-	-	-	2	2
CZC				0	0	0
Total	14	6	8	23	9	60

Table 5.4: Staff separation by separation types (2019 to 2023)

Separation type	2019	2020	2021	2022	2023	Total
Early Retirement Scheme	1	0	0	0	0	1
Expired	0	0	1	0	0	1
Superannuation	0	0	0	0	0	0
Voluntary	14	5	6	26	9	60

Training and Development of TVET Professionals

TVET professionals play a crucial role in preparing students for the workforce. The training and development of TVET professionals is essential to ensure that they possess the necessary knowledge, skills, and competencies to deliver high-quality vocational education. The Technical Trainers Training and Resources Centre (TTTRC) located in JWPTI is the lead agency mandated with the training and development of TVET professionals in the country. Currently, professional development opportunities for TVET professionals can include short-term and long-term learning, in-house, in-country, ex-country, or online. The development opportunities also include industry attachment. These opportunities not only enhance the skills of TVET professionals but also enable them to stay up-to-date with the latest trends and advancements in their field.

To ensure the continuous growth and development of TVET professionals, the TTTRC carries out regular training needs assessments and plans out development activities from different funding sources. The training and development activities are mainly categorised in four different areas:

Training of Trainer (TOT); Occupational Skills Development in specific trades of the instructors; Skills Supervisor Training for the industry partner supporting the institutes in OJT programs; and Online Learning. These training and development activities are not only confined to DWPSD administered institutes but also to the private training providers and industry partners.

As indicated in the following figure, in 2023, a total of 192 TVET professionals from DWPSD-administered institutes, private training institutes, other public training institutes, and industries were provided with different training and development support pertaining to TVET training delivery. Out of the total, 31 of the training were conducted ex-country, and 161 were conducted in-country.

Figure 5.3: Training and development of TVET professionals in 2022

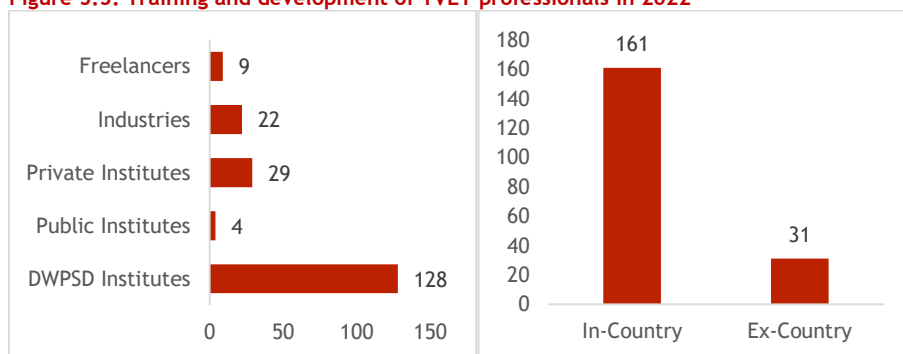


Table 5.5: Training and development of TVET professionals in 2023

SN	Training and Development Program	Number
1	Occupational Skills Development Program - Basic of robotics	7
2	Occupational Skills Development Program - Hydraulic and pneumatic	7
3	Occupational Skills Development Program - Industrial automation	5
4	Occupational Skills Development Program - RIMU	15
5	Occupational Skills Development Program - ToT skills for automobile, technology training	12
6	Skills Supervisor Training for Industry - Automobile	21
7	Skills Supervisor Training for Industry - Construction	1
8	TOT - DACUM Process	10
9	TOT - RMA	8
10	TOT Technical Instruction and Vocational Andragogy (Evaluation)	23
11	TOT Technical Instruction and Vocational Andragogy (Knowledge)	24
12	TOT Technical Instruction and Vocational Andragogy (Skills)	26
13	TOT Technical Instruction and Vocational Andragogy (Visualization)	24
14	TOT-Supervision of Instruction	9
	Total	192

Budget Allocation and utilization

TVET financing is an essential aspect of the development of a skilled workforce. It can come from different sources, including government and non-government funds. Currently, there are two main key sources of funding for TVET. Government funding is a major source of financing for TVET in the country, allocated through a five-year planning and annual budgeting process. Donor-funded projects are another key source of TVET financing. Bhutan has received funding support for TVET from international development partners such as the World Bank, Asian Development Bank, Government of India, HELVETAS, GTZ, and other bilateral and multilateral agencies.

However, when it comes to TVET expenditure, there are four main areas:

- Funding all programs and activities implemented in the Public TVET institutions, specifically those under the direct administration of the DWPSD.
- Skills development programs and training implemented in partnership with registered Private Training Institutes. Skills training such as Critical Skills Training (CST) and Critical Capability Development (CCD) are currently implemented in partnership with private training institutions.
- Community Skills Activities through programs such as the Village Skills Development Program (VSDP) and Special Skills Development Program (SSDP).
- Training and development activities implemented for the specific sector or industry in partnership with Sector Bodies such as the Bhutan Chamber of Commerce and Industry (BCCI), Agency for Promotion of Indigenous Arts and Craft (APIC), Tourism Council of Bhutan (TCB), private sector association bodies, and government sector bodies.

During the 11th FYP period, the annual TVET budget, which includes budget for the DWPSD, DWPSD administered institutes and TVET QC, was about Nu. 413 million, which increased to about Nu. 660 million in the 12th FYP period. Similarly, the annual average budget expenditure increased from Nu. 360 million in the 11th FYP period to 420 million in the 12th FYP period. The TVET budget and expenditure in table 5.6 includes the budget and expenditure by the DWPSD, TVET QC, and the institutes under the direct administration of the DWPSD. The details of which are provided in the subsequent tables.

Table 5.6: Overall TVET budget and expenditure (2013 to 2023)

Year	Budget (in million Nu.)			Expenditure (in million Nu.)			Utilization rate (%)
	Current	Capital	Total	Current	Capital	Total	
2013-2014	130.562	259.822	390.384	119.119	195.482	314.601	80.6
2014-2015	151.268	187.149	338.417	141.503	160.463	301.966	89.2
2015-2016	152.608	195.95	348.558	146.738	182.038	328.776	94.3
2016-2017	154.805	351.928	506.733	151.522	277.584	429.106	84.7
2017-2018	158.521	321.554	480.075	154.819	282.298	437.117	91.1
2018-2019	161.945	160.54	322.485	159.689	129.499	289.188	89.7
2019-2020	203.982	370.687	574.669	194.272	213.006	407.278	70.9
2020-2021	180.702	409.86	590.562	178.075	253.558	431.633	73.1
2021-2022	183.079	571.987	755.066	180.329	416.31	596.639	79.0
2022-2023	178.697	1062.129	1240.826	175.746	635.588	811.334	65.4

Table 5.7: DWPSD budget and expenditure (2013 to 2023)

Year	Budget (in million Nu.)			Expenditure (in million Nu.)			Utilization rate (%)
	Current	Capital	Total	Current	Capital	Total	
2013-2014	14.528	223.887	238.415	12.76	161.178	173.938	73
2014-2015	19.393	148.959	168.352	17.946	129.456	147.402	87.6
2015-2016	18.32	148.756	167.076	17.152	135.793	152.945	91.5
2016-2017	16.563	300.433	316.996	16.105	227.755	243.86	76.9
2017-2018	10.683	248.709	259.392	10.497	210.499	220.996	85.2
2018-2019	15.56	107.18	122.74	15.083	76.728	91.811	74.8
2019-2020	14.44	284.43	298.87	14.115	139.537	153.652	51.4
2020-2021	12.322	323.796	336.118	12.223	173.847	186.07	55.4
2021-2022	12.552	507.792	520.344	12.502	355.499	368.001	70.7
2022-2023	15.296	1007.240	1023.536	16.066	588.060	604.126	59.0

Table 5.8: TVET QC/DOS budget and expenditure (2013 to 2022)

Year	Budget (in million Nu.)			Expenditure (in million Nu.)			Utilization rate (%)
	Current	Capital	Total	Current	Capital	Total	
2013-2014	6.524	8.65	15.174	6.164	8.595	14.759	97.3
2014-2015	7.557	13.168	20.725	7.44	7.999	15.439	74.5
2015-2016	7.538	12.32	19.858	7.529	12.313	19.842	99.9
2016-2017	8.109	13.148	21.257	8.058	13.038	21.096	99.2
2017-2018	8.809	15.879	24.688	8.637	15.833	24.47	99.1
2018-2019	8.137	10.925	19.062	7.997	10.688	18.685	98
2019-2020	9.359	11.042	20.401	9.316	8.536	17.852	87.5
2020-2021	8.943	9.625	18.568	8.89	8.875	17.765	95.7
2021-2022	11.895	7.498	19.393	11.76	7.389	19.149	98.7
2022-2023	6.927	7.800	14.727	6.774	7.683	14.457	98.2

Table 5.9: DWPSD Administered institutes budget and expenditure (2013 to 2022)

Year	Budget (in million Nu.)			Expenditure (in million Nu.)			Utilization rate (%)
	Current	Capital	Total	Current	Capital	Total	
2013-2014	109.51	27.285	136.795	100.195	25.709	125.904	92
2014-2015	124.318	25.022	149.34	116.117	23.008	139.125	93.2
2015-2016	126.75	34.874	161.624	122.057	33.932	155.989	96.5
2016-2017	130.133	38.347	168.48	127.359	36.791	164.15	97.4
2017-2018	139.029	56.966	195.995	135.685	55.966	191.651	97.8
2018-2019	138.248	42.435	180.683	136.609	42.083	178.692	98.9
2019-2020	180.183	75.215	255.398	170.841	64.933	235.774	92.3
2020-2021	159.437	76.439	235.876	156.962	70.836	227.798	96.6
2021-2022	158.632	56.697	215.329	156.067	53.422	209.489	97.3
2022-2023	155.474	47.089	202.563	152.906	39.845	192.751	95.2

ANNEXURES

Table 6.1: List of courses offered by CZC by certification level

Course	Certification Level	Accreditation	Program
Jim-Zop	NC2	Accredited	Regular
Troe-Zop	NC2	Accredited	Regular
Tshem-Zop	NC2	Accredited	Regular
Tshemdrup	NC2	Accredited	Regular
Patrap	NC3	Accredited	Regular
Shag-Zop	NC3	Accredited	Regular
Tshem-Zop	NC3	Accredited	Regular
Lhadrip	National Diploma	Accredited	Regular
Patrap	National Diploma	Accredited	Regular

Table 6.2: List of courses offered by JWPTI by certification level

Course	Certification Level	Accreditation	Program
3D Printing	Institute Certificate	Not Accredited	SDP
Bakery and Confectionery	Institute Certificate	Not Accredited	SDP
Bakery and Pastry	Institute Certificate	Not Accredited	SDP
Basic Landscape Design	Institute Certificate	Not Accredited	SDP
Construction Carpentry	Institute Certificate	Not Accredited	SDP
Domestic Wiring	Institute Certificate	Not Accredited	SDP
False Ceiling	Institute Certificate	Not Accredited	SDP
Furniture Making	Institute Certificate	Not Accredited	SDP
Mechanical Fitter	Institute Certificate	Not Accredited	SDP
Mobile robotic	Institute Certificate	Not Accredited	SDP
Solar Power Technology	Institute Certificate	Not Accredited	SDP
Transmission and Distribution Linemen	Institute Certificate	Not Accredited	SDP
Upholstery	Institute Certificate	Not Accredited	SDP
Welding	Institute Certificate	Not Accredited	SDP
Construction Carpentry	NC2	Accredited	SDP
Domestic Electrician	NC2	Accredited	SDP
Mason	NC2	Accredited	DTP Regular
Mason	NC2	Accredited	SDP
Mechanical Fitter	NC2	Accredited	SDP
Plumber	NC2	Accredited	SDP
Transmission and Distribution Linemen	NC2	Accredited	SDP
Welder	NC2	Accredited	SDP
Wooden Furniture Maker	NC2	Accredited	SDP
Mason	NC3	Accredited	SDP

Table 6.3: List of courses offered by NIZC by certification level

Course	Certification Level	Accreditation	Program
Bag Design and Production	Institute Certificate	Not Accredited	SDP
Contemporary Sculpture	Institute Certificate	Not Accredited	SDP
Lhadrip	Institute Certificate	Not Accredited	SDP
Patrap	Institute Certificate	Not Accredited	SDP
Thazho(Weaving)	Institute Certificate	Not Accredited	SDP
Tshemdrup	Institute Certificate	Not Accredited	SDP
Tshemzo	Institute Certificate	Not Accredited	SDP
Jim-Zop	NC2	Accredited	Regular
Troe-Zop	NC2	Accredited	Regular
Lhadrip	NC3	Accredited	Regular
Patrap	NC3	Accredited	Regular
Troe-Zop	NC3	Accredited	Regular
Tshem-Zop	NC3	Accredited	Regular
Tshemdrup	NC3	Accredited	Regular

Table 6.4: List of courses offered by RDTC by certification level

Course	Certification Level	Accreditation	Program
Bakery and Confectionary	Institute Certificate	Not Accredited	SDP
Basic Floriculture	Institute Certificate	Not Accredited	SDP
Cane and Bamboo Art Design and Development	Institute Certificate	Not Accredited	SDP
Culinary Arts	Institute Certificate	Not Accredited	SDP
Dairy Production	Institute Certificate	Not Accredited	SDP
Food Product Development	Institute Certificate	Not Accredited	SDP
Fruit Production	Institute Certificate	Not Accredited	SDP
Medicinal and Aromatic Plants and Spices	Institute Certificate	Not Accredited	SDP
Mushroom Production	Institute Certificate	Not Accredited	SDP
Poultry Production	Institute Certificate	Not Accredited	SDP
Vegetable Production	Institute Certificate	Not Accredited	SDP

Table 6.5: List of courses offered by RITH by certification level

Course	Certification Level	Accreditation	Program
Barista	Institute Certificate	Not Accredited	SDP
Bartender	Institute Certificate	Not Accredited	SDP
Food Production	Institute Certificate	Not Accredited	SDP

Table 6.6: List of courses offered by TTI-C by certification level

Course	Certification Level	Accreditation	Program
Bakery and Confectionery	Institute Certificate	Not Accredited	SDP
Construction Carpentry	Institute Certificate	Not Accredited	SDP
Metal Art Design	Institute Certificate	Not Accredited	SDP
Plumbing	Institute Certificate	Not Accredited	SDP
Tile Laying	Institute Certificate	Not Accredited	SDP
Wooden Furniture Making	Institute Certificate	Not Accredited	SDP
Mason	NC2	Accredited	SDP
Plumber	NC2	Accredited	SDP
Welder	NC2	Accredited	SDP
Wooden Furniture Maker	NC2	Accredited	SDP
Welder	NC3	Accredited	SDP

Table 6.7: List of courses offered by TTI-K by certification level

Course	Certification Level	Accreditation	Program
Basic Internet of Things (IoT)	Institute Certificate	Not Accredited	SDP
CCTV System	Institute Certificate	Not Accredited	SDP
Domestic Wiring	Institute Certificate	Not Accredited	SDP
Mechanical Fitting	Institute Certificate	Not Accredited	SDP
Metal Art Design and Fabrication	Institute Certificate	Not Accredited	SDP
Motor Rewinding	Institute Certificate	Not Accredited	SDP
Welding	Institute Certificate	Not Accredited	SDP
Domestic Electrician	NC2	Accredited	SDP
Mechanical Fitter	NC2	Accredited	SDP
Metal Art and Fabrication Technician	NC2	Accredited	SDP
Welding	NC2	Accredited	SDP

Table 6.8: List of courses offered by TTI-R by certification level

Course	Certification Level	Accreditation	Program
Cloud Computing - AWS re/Start Program	Institute Certificate	Not Accredited	SDP
Hair and Beauty Therapy	Institute Certificate	Not Accredited	SDP
Auto Mechanic	NC2	Accredited	SDP
Computer Hardware and Networking Technician	NC2	Accredited	SDP
Domestic Electrician	NC2	Accredited	Regular
Domestic Electrician	NC2	Accredited	SDP
Wooden Furniture Maker	NC2	Accredited	SDP
Wooden Furniture Maker	NC2	Accredited	Regular
Industry Electrical Technician	NC3	Accredited	SDP

Table 6.9: List of courses offered by TTI-S by certification level

Course	Certification Level	Accreditation	Program
Bag Design and Production	Institute Certificate	Not Accredited	SDP
Digital Marketing	Institute Certificate	Not Accredited	SDP
Hair and Beauty Therapy	Institute Certificate	Not Accredited	SDP
Heavy Vehicle Driving	Institute Certificate	Not Accredited	SDP
Auto Electrician	NC2	Accredited	SDP
Auto Mechanic	NC2	Accredited	SDP
Backhoe Operator	NC2	Accredited	SDP
Earthmoving Equipment Mechanic	NC2	Accredited	SDP
Excavator Operator	NC2	Accredited	SDP
Heavy Auto Mechanic	NC2	Accredited	SDP
Auto Electrician	NC3	Accredited	SDP
Auto Electrician	NC3	Accredited	DTP Regular

Table 6.10: List of courses offered by TTI-T by certification level

Course	Certification Level	Accreditation	Program
Electric Vehicle	Institute Certificate	Not Accredited	SDP
Auto Mechanic	NC2	Accredited	SDP
Automobile Painter	NC2	Accredited	SDP
Panel Beater	NC2	Accredited	SDP
Refrigeration and Air Conditioning Technician	NC2	Accredited	SDP
Auto Mechanic	NC3	Accredited	SDP

Table 6.11: List of staff by position category in DWPSD and institutes

Position	DWPSD	CZC	JWPTI	NIZC	RDTC	RITH	TTI-C	TTI-K	TTI-R	TTI-S	TTI-T	Total
Accounts	0	0	0	0	0	1	0	0	0	1	0	2
Administration	1	1	1	2	1	2	1	1	1	1	1	13
Attendant	0	0	0	0	8	0	0	0	0	0	0	8
Bartender	0	0	0	0	0	1	0	0	0	0	0	1
Cook	0	3	2	2	1	2	4	3	2	3	0	22
Director	1	0	0	0	0	0	0	0	0	0	0	1
Driver	1	2	3	2	3	1	2	2	2	1	1	20
Engineer	2	0	0	0	0	0	0	0	0	0	0	2
Gardener	0	0	0	0	0	1	0	0	0	0	0	1
Instructor	1	18	14	25	5	2	10	12	12	16	11	126
Lab Assistant	0	1	0	0	0	0	0	1	1	1	0	4
Laundry	0	0	0	0	0	2	0	0	0	0	0	2
Lecturer	3	2	5	1	1	10	6	5	6	2	2	43
Librarian	0	1	1	1	0	1	1	1	1	0	0	7
Principal	0	1	0	1	1	0	1	1	1	0	1	7
Procurement	0	0	0	0	0	1	0	0	0	0	0	1
Program Analyst	2	0	0	0	0	0	0	0	0	0	0	2
Program Officer	21	0	0	0	0	0	0	0	0	0	0	21
Receptionist	0	0	0	0	0	2	0	0	0	0	0	2
Security Guard	0	1	2	1	1	2	0	1	1	0	0	9
Specialist	1	0	0	0	0	0	0	0	0	0	0	1
Statistician	1	0	0	0	0	0	0	0	0	0	0	1
Store	1	1	1	1	1	1	0	1	1	1	0	9
Sweeper	0	1	2	1	1	3	1	1	0	1	1	12
Technician	0	0	1	0	1	3	0	0	0	0	0	5
Waiter	0	0	0	0	0	1	0	0	0	0	0	1
Total	35	32	32	37	24	36	26	29	28	27	17	323

Table 6.12: TTI-C - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	2.00	0.00	21.00	44.00	33.00
Practical Component	0.00	1.00	7.00	32.00	60.00
On-the-job-training	5.00	2.00	9.00	48.00	36.00
Entrepreneurship and self-employment training	1.00	3.00	22.00	43.00	31.00
Career Counselling service	1.00	4.00	20.00	47.00	28.00
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.00	0.00	10.00	35.00	55.00
Quality of training in Practical Component	1.00	0.00	18.00	48.00	33.00
Use of Instructional Materials and Aids	1.00	3.00	15.00	44.00	37.00
Availability for course related consultation and feedback	1.00	0.00	14.00	60.00	25.00
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	0.00	6.00	20.00	44.00	30.00
Quality of Practical training areas	1.00	1.00	23.00	45.00	30.00
Training tools and equipment	1.00	1.00	18.00	49.00	31.00
Computer laboratories	23.00	21.00	26.00	23.00	7.00
Library and/or resource centre	6.00	16.00	34.00	35.00	9.00
Accommodation/Hostels	2.00	11.00	30.00	39.00	18.00
Dining/Mess	2.00	4.00	35.00	47.00	12.00
Internet Connectivity	8.00	15.00	25.00	35.00	17.00
Transportation facilities	1.00	11.00	33.00	43.00	12.00
Sports and recreational facilities	2.00	14.00	36.00	39.00	9.00
Occupational Health and Safety (OHS)	1.00	4.00	33.00	44.00	18.00
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	4.55	0.00	13.64	22.73	59.09
It was easy to get a job from the skills I acquired from the course	13.64	0.00	18.18	22.73	45.45
There were enough work opportunities after graduation	4.55	4.55	27.27	18.18	45.45
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	0.00	0.00	30.00	50.00	20.00
It was easy to setup my own business/work after graduation	10.00	0.00	60.00	20.00	10.00
There were enough business opportunities after graduation	0.00	20.00	50.00	20.00	10.00

Table 6.13: NIZC - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	0.99	1.98	22.77	45.54	28.71
Practical Component	0.00	0.00	13.86	43.56	42.57
On-the-job-training	0.99	3.96	14.85	47.52	32.67
Entrepreneurship and self-employment training	2.97	1.98	12.87	49.50	32.67
Career Counselling service	26.73	5.94	19.80	47.52	0.00
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.00	1.98	6.93	44.55	46.53
Quality of training in Practical Component	0.99	2.97	9.90	55.45	30.69
Use of Instructional Materials and Aids	0.00	2.97	11.88	47.52	37.62
Availability for course related consultation and feedback	0.00	3.96	10.89	51.49	33.66
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	0.99	0.00	14.85	37.62	46.53
Quality of Practical training areas	1.98	0.99	12.87	44.55	39.60
Training tools and equipment	1.98	0.00	8.91	34.65	54.46
Computer laboratories	0.99	8.91	22.77	45.54	21.78
Library and/or resource centre	2.97	0.99	25.74	49.50	20.79
Accommodation/Hostels	6.93	4.95	20.79	45.54	21.78
Dining/Mess	4.95	5.94	21.78	49.50	17.82
Internet Connectivity	2.97	3.96	23.76	47.52	21.78
Transportation facilities	9.90	10.89	19.80	43.56	15.84
Sports and recreational facilities	12.87	14.85	24.75	35.64	11.88
Occupational Health and Safety (OHS)	2.97	5.94	25.74	45.54	19.80
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	14.29	0.00	17.86	21.43	46.43
It was easy to get a job from the skills I acquired from the course	14.29	7.14	17.86	21.43	39.29
There were enough work opportunities after graduation	17.86	3.57	21.43	25.00	32.14
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	14.29	0.00	17.86	21.43	46.43
It was easy to setup my own business/work after graduation	14.29	7.14	17.86	21.43	39.29
There were enough business opportunities after graduation	17.86	3.57	21.43	25.00	32.14

Table 6.14: JWPTI - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	0.48	0.96	19.23	45.19	34.13
Practical Component	0.96	0.96	12.50	46.15	39.42
On-the-job-training	6.25	5.77	17.31	43.27	27.40
Entrepreneurship and self-employment training	1.44	2.88	14.42	50.00	31.25
Career Counselling service	0.96	2.40	20.19	49.04	27.40
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.48	0.96	10.10	47.12	41.35
Quality of training in Practical Component	0.96	1.44	14.90	45.19	37.50
Use of Instructional Materials and Aids	2.40	2.88	16.35	47.60	30.77
Availability for course related consultation and feedback	1.92	3.85	20.19	49.52	24.52
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	1.44	3.37	15.38	46.63	33.17
Quality of Practical training areas	2.40	1.44	17.31	47.12	31.73
Training tools and equipment	2.88	7.21	20.67	44.71	24.52
Computer laboratories	4.81	10.58	23.56	43.27	17.79
Library and/or resource centre	4.33	5.29	25.48	41.35	23.56
Accommodation/Hostels	0.96	3.85	22.60	48.56	24.04
Dining/Mess	1.92	4.33	21.15	47.60	25.00
Internet Connectivity	10.58	16.83	27.88	30.29	14.42
Transportation facilities	10.10	17.79	25.96	34.13	12.02
Sports and recreational facilities	3.85	6.25	25.48	39.90	24.52
Occupational Health and Safety (OHS)	1.44	3.85	20.67	49.04	25.00
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	12.20	7.32	17.07	29.27	34.15
It was easy to get a job from the skills I acquired from the course	12.20	17.07	24.39	19.51	26.83
There were enough work opportunities after graduation	26.83	12.20	26.83	17.07	17.07
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	23.08	7.69	0.00	7.69	61.54
It was easy to setup my own business/work after graduation	30.77	0.00	15.38	7.69	46.15
There were enough business opportunities after graduation	38.46	0.00	23.08	15.38	23.08

Table 6.15: RDTC - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	1.50	0.00	17.29	35.34	45.87
Practical Component	0.75	2.26	12.78	35.34	48.87
On-the-job-training	3.76	3.01	21.05	38.35	33.83
Entrepreneurship and self-employment training	3.01	1.50	16.54	41.35	37.59
Career Counselling service	2.26	6.02	17.29	47.37	27.07
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	2.26	1.50	12.78	39.10	44.36
Quality of training in Practical Component	3.76	0.75	14.29	35.34	45.86
Use of Instructional Materials and Aids	3.01	4.51	12.78	39.85	39.85
Availability for course related consultation and feedback	3.76	0.75	15.04	46.62	33.83
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	2.26	2.26	18.05	33.83	43.61
Quality of Practical training areas	1.50	1.50	14.29	42.11	40.60
Training tools and equipment	3.76	4.51	15.79	40.60	35.34
Computer laboratories	15.04	12.03	23.31	28.57	21.05
Library and/or resource centre	8.27	13.53	23.31	34.59	20.30
Accommodation/Hostels	3.01	2.26	17.29	39.10	38.35
Dining/Mess	3.01	6.77	21.05	31.58	37.59
Internet Connectivity	17.29	15.04	29.32	23.31	15.04
Transportation facilities	6.02	14.29	18.80	38.35	22.56
Sports and recreational facilities	7.52	14.29	24.06	30.83	23.31
Occupational Health and Safety (OHS)	3.76	5.26	24.81	43.61	22.56
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	5.88	23.53	23.53	17.65	29.41
It was easy to get a job from the skills I acquired from the course	5.88	23.53	17.65	17.65	35.29
There were enough work opportunities after graduation	11.76	29.41	23.53	17.65	17.65
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	18.18	0.00	9.09	9.09	63.64
It was easy to setup my own business/work after graduation	18.18	0.00	9.09	9.09	63.64
There were enough business opportunities after graduation	27.27	9.09	9.09	9.09	45.45

Table 6.16: RITH - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	3.96	0.00	12.87	37.62	45.54
Practical Component	0.99	0.00	10.89	28.71	59.41
On-the-job-training	3.96	0.99	18.81	31.68	44.55
Entrepreneurship and self-employment training	1.98	1.98	11.88	39.60	44.55
Career Counselling service	1.98	0.99	17.82	43.56	35.64
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	2.97	0.00	7.92	30.69	58.42
Quality of training in Practical Component	2.97	0.00	11.88	35.64	49.50
Use of Instructional Materials and Aids	1.98	0.00	7.92	38.61	51.49
Availability for course related consultation and feedback	2.97	0.00	10.89	44.55	41.58
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	1.67	3.55	18.19	41.18	35.40
Quality of Practical training areas	1.74	3.41	19.16	40.98	34.70
Training tools and equipment	3.07	6.41	18.75	38.26	33.52
Computer laboratories	5.85	9.20	24.88	39.65	20.42
Library and/or resource centre	4.60	8.99	26.90	38.95	20.56
Accommodation/Hostels	3.83	5.23	20.49	39.93	30.52
Dining/Mess	4.11	7.80	25.37	39.79	22.93
Internet Connectivity	8.85	13.52	26.34	33.94	17.35
Transportation facilities	7.18	13.31	27.53	36.17	15.82
Sports and recreational facilities	8.22	12.26	27.11	34.91	17.49
Occupational Health and Safety (OHS)	2.02	4.04	22.51	43.34	28.08
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	0.00	8.33	8.33	37.50	45.83
It was easy to get a job from the skills I acquired from the course	4.17	8.33	4.17	29.17	54.17
There were enough work opportunities after graduation	4.17	0.00	37.50	20.83	37.50
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	0.00	0.00	50.00	0.00	50.00
It was easy to setup my own business/work after graduation	0.00	0.00	50.00	0.00	50.00
There were enough business opportunities after graduation	0.00	0.00	50.00	0.00	50.00

Table 6.17: TTI-C - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	0.65	4.58	11.11	46.41	37.25
Practical Component	1.31	1.96	15.69	36.60	44.44
On-the-job-training	7.19	6.54	28.10	30.72	27.45
Entrepreneurship and self-employment training	3.92	4.58	15.03	46.41	30.07
Career Counselling service	3.27	5.88	20.26	40.52	30.07
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.00	1.96	13.73	42.48	41.83
Quality of training in Practical Component	0.65	1.31	13.07	43.14	41.83
Use of Instructional Materials and Aids	0.00	3.92	15.69	43.14	37.25
Availability for course related consultation and feedback	1.31	1.96	19.61	49.02	28.10
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	0.65	1.96	16.99	43.14	37.25
Quality of Practical training areas	0.65	3.27	15.69	44.44	35.95
Training tools and equipment	0.65	7.19	15.69	39.87	39.60
Computer laboratories	3.27	9.80	26.80	35.95	24.18
Library and/or resource centre	3.92	10.46	28.10	35.29	22.22
Accommodation/Hostels	3.92	7.19	22.88	42.48	23.53
Dining/Mess	4.58	6.54	28.76	37.25	22.88
Internet Connectivity	2.61	13.07	24.18	39.87	20.26
Transportation facilities	4.58	10.46	28.76	36.60	19.61
Sports and recreational facilities	4.58	9.80	29.41	38.56	17.65
Occupational Health and Safety (OHS)	0.65	5.23	16.34	43.79	33.99
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	25.00	3.12	25.00	15.62	31.25
It was easy to get a job from the skills I acquired from the course	9.38	12.50	37.50	18.75	21.88
There were enough work opportunities after graduation	6.25	9.38	40.62	18.75	25.00
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	14.29	14.29	0.00	0.00	71.43
It was easy to setup my own business/work after graduation	14.29	0.00	14.29	14.29	57.14
There were enough business opportunities after graduation	28.57	0.00	28.57	0.00	42.86

Table 6.18: TTI-K - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	1.39	2.31	14.81	43.52	37.96
Practical Component	1.39	2.78	18.52	37.50	39.81
On-the-job-training	5.56	6.94	17.59	41.20	28.70
Entrepreneurship and self-employment training	1.85	2.78	17.59	43.52	34.26
Career Counselling service	3.24	3.70	24.54	47.22	21.30
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	2.31	2.78	16.67	42.59	35.65
Quality of training in Practical Component	1.39	2.78	15.74	45.83	34.26
Use of Instructional Materials and Aids	2.31	2.78	19.44	39.35	36.11
Availability for course related consultation and feedback	1.39	6.02	20.83	48.15	23.61
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	1.85	3.70	19.44	47.69	27.31
Quality of Practical training areas	1.85	3.24	24.54	42.59	27.78
Training tools and equipment	2.78	4.17	24.54	38.43	30.09
Computer laboratories	3.24	6.48	25.93	42.59	21.76
Library and/or resource centre	6.02	10.19	29.17	37.96	16.67
Accommodation/Hostels	2.78	2.31	21.30	43.98	29.63
Dining/Mess	5.09	12.96	24.54	40.28	17.13
Internet Connectivity	14.81	16.20	26.85	28.24	13.89
Transportation facilities	5.56	11.11	33.33	35.65	14.35
Sports and recreational facilities	10.65	15.74	31.02	30.09	12.50
Occupational Health and Safety (OHS)	2.78	3.70	25.00	44.44	24.07
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	4.84	3.23	16.13	30.65	45.16
It was easy to get a job from the skills I acquired from the course	6.45	4.84	32.26	24.19	32.26
There were enough work opportunities after graduation	6.45	19.35	25.81	27.42	20.97
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	0.00	0.00	20.00	40.00	40.00
It was easy to setup my own business/work after graduation	0.00	0.00	40.00	40.00	20.00
There were enough business opportunities after graduation	0.00	20.00	20.00	40.00	20.00

Table 6.19: TTI-R - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	0.87	2.17	24.35	47.39	25.22
Practical Component	2.17	5.22	17.83	37.39	37.39
On-the-job-training	5.65	3.48	20.87	40.43	29.57
Entrepreneurship and self-employment training	3.48	5.65	18.26	34.35	38.26
Career Counselling service	1.74	4.35	28.70	45.22	20.00
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	1.30	5.22	17.39	43.91	32.17
Quality of training in Practical Component	0.87	3.04	19.13	47.83	29.13
Use of Instructional Materials and Aids	1.74	9.13	24.35	42.17	22.61
Availability for course related consultation and feedback	0.43	6.52	27.39	48.26	17.39
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	3.04	8.26	31.74	40.00	16.96
Quality of Practical training areas	1.74	10.00	29.13	40.43	18.70
Training tools and equipment	6.96	16.96	28.26	29.57	18.26
Computer laboratories	5.22	7.83	32.61	38.70	15.65
Library and/or resource centre	3.91	11.30	36.09	36.09	12.61
Accommodation/Hostels	3.91	6.52	27.39	45.65	16.52
Dining/Mess	3.91	10.87	33.91	36.09	15.22
Internet Connectivity	3.91	14.78	29.13	38.70	13.48
Transportation facilities	6.52	14.78	32.61	36.52	9.57
Sports and recreational facilities	7.83	19.13	30.43	33.04	9.57
Occupational Health and Safety (OHS)	3.04	4.78	25.65	50.00	16.52
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	12.73	1.82	14.55	29.09	41.82
It was easy to get a job from the skills I acquired from the course	3.64	5.45	27.27	36.36	27.27
There were enough work opportunities after graduation	7.27	7.27	38.18	18.18	29.09
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	10.00	20.00	30.00	0.00	40.00
It was easy to setup my own business/work after graduation	30.00	20.00	0.00	10.00	40.00
There were enough business opportunities after graduation	10.00	10.00	40.00	20.00	20.00

Table 6.20: TTI-S - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	1.47	0.74	9.56	42.65	45.59
Practical Component	2.21	4.41	5.88	38.97	48.53
On-the-job-training	4.41	2.94	10.29	38.24	44.12
Entrepreneurship and self-employment training	1.47	2.94	7.35	44.12	44.12
Career Counselling service	2.94	3.68	13.24	43.38	36.76
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.00	4.41	5.15	37.50	52.94
Quality of training in Practical Component	0.74	2.21	6.62	42.65	47.79
Use of Instructional Materials and Aids	1.47	3.68	9.56	46.32	38.97
Availability for course related consultation and feedback	0.00	2.21	6.62	54.41	36.76
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	1.47	0.74	7.35	38.97	51.47
Quality of Practical training areas	2.94	2.94	12.50	37.50	44.12
Training tools and equipment	2.94	4.41	10.29	44.85	37.50
Computer laboratories	2.21	5.15	16.18	48.53	27.94
Library and/or resource centre	3.68	5.15	17.65	46.32	27.21
Accommodation/Hostels	0.74	4.41	8.09	22.79	63.97
Dining/Mess	5.15	5.15	16.91	42.65	30.15
Internet Connectivity	5.15	11.03	18.38	41.18	24.26
Transportation facilities	7.35	5.88	25.00	40.44	21.32
Sports and recreational facilities	5.15	2.21	16.18	44.85	31.62
Occupational Health and Safety (OHS)	0.74	3.68	12.50	33.82	49.26
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	9.76	2.44	14.63	24.39	48.78
It was easy to get a job from the skills I acquired from the course	19.51	4.88	17.07	19.51	39.02
There were enough work opportunities after graduation	17.07	12.20	21.95	19.51	29.27
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	0.00	0.00	0.00	0.00	100.00
It was easy to setup my own business/work after graduation	0.00	0.00	0.00	0.00	100.00
There were enough business opportunities after graduation	0.00	0.00	100.00	0.00	0.00

Table 6.21: TTI-T - Feedback from graduates on course, trainer & facilities (percent)

Course Content	Very Poor	Poor	Average	Good	Very Good
Theoretical component	0.00	0.00	14.04	47.37	38.60
Practical Component	0.00	3.51	12.28	35.09	49.12
On-the-job-training	0.00	0.00	17.54	35.09	47.37
Entrepreneurship and self-employment training	0.00	1.75	19.30	38.60	40.35
Career Counselling service	0.00	5.26	21.05	38.60	35.09
Trainer	Very Poor	Poor	Average	Good	Very Good
Quality of training in Theoretical Component	0.00	1.75	14.04	35.09	49.12
Quality of training in Practical Component	0.00	1.75	21.05	28.07	49.12
Use of Instructional Materials and Aids	0.00	5.26	24.56	38.60	31.58
Availability for course related consultation and feedback	0.00	0.00	26.32	40.35	33.33
Facilities and Infrastructure	Very Poor	Poor	Average	Good	Very Good
Quality of Classroom	0.00	7.02	28.07	36.84	28.07
Quality of Practical training areas	0.00	5.26	28.07	33.33	33.33
Training tools and equipment	1.75	8.77	26.32	36.84	26.32
Computer laboratories	0.00	14.04	22.81	31.58	31.58
Library and/or resource centre	1.75	17.54	24.56	33.33	22.81
Accommodation/Hostels	24.56	15.79	22.81	17.54	19.30
Dining/Mess	12.28	19.30	29.82	22.81	15.79
Internet Connectivity	26.32	14.04	26.32	17.54	15.79
Transportation facilities	17.54	24.56	14.04	26.32	17.54
Sports and recreational facilities	38.60	24.56	12.28	10.53	14.04
Occupational Health and Safety (OHS)	0.00	1.75	35.09	33.33	29.82
Statements (employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current area of work	7.14	0.00	7.14	35.71	50.00
It was easy to get a job from the skills I acquired from the course	0.00	7.14	14.29	35.71	42.86
There were enough work opportunities after graduation	0.00	7.14	35.71	28.57	28.57
Statements (Self-employed)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to use the skills I learned from my course to my current business	0.00	0.00	0.00	0.00	0.00
It was easy to setup my own business/work after graduation	0.00	0.00	0.00	0.00	0.00
There were enough business opportunities after graduation	0.00	0.00	0.00	0.00	0.00

List of Industry partnership and linkages

Industry Partners: CZC

- 1 Auma Dendrup Tailoring Shop
- 2 Ausa Tailoring Shop
- 3 Banjarpa Tailoring shop
- 4 Bhutan Live Thangka
- 5 Cheten Tailoring and Showroom
- 6 Dechen Tailoring Shop
- 7 Dechog Tailoring Shop
- 8 Dorji Pelzom Tailoring Shop
- 9 Dorji Phuntsho Tailoring Shop
- 10 Good fit Tailoring Shop
- 11 Institute of Bhutanese Arts and Management
- 12 Jangchuk Traditional Painting
- 13 Jurmey Thinley Tailoring Shop
- 14 Karma Tailoring Shop
- 15 Kee Cee Tailoring Shop
- 16 Kinga Lhamo Tailoring Shop
- 17 Kota Tailoring Shop
- 18 KTW Tailoring Shop
- 19 Kuendrup Tailoring
- 20 Kuenphen Tailoring Shop
- 21 Lekden Tailoring Shop
- 22 Maintenance of Tago Monastery
- 23 Mayrab Tailoring Shop
- 24 Mayrab Tailoring shop
- 25 Mindu Universal Tailoring Shop
- 26 Mineral Pigment Painting
- 27 Namgay Tailoring Shop
- 28 Namsey Tashi Tshemkhang
- 29 Nga Dra Ma Bronze Casting Works
- 30 Norling Tailoring Shop
- 31 Pelden Drukpa Tailoring Shop
- 32 Pema Lhamo Tailoring shop
- 33 Phuntsho Tashi Dhea-jang Tailoring
- 34 Rabzey gayzang Jutshel Tailoring Shop
- 35 Radra Tshemzo Khang
- 36 Rinchen Genzang Tailoring Shop
- 37 Thegpa Dorji Tashi Tailoring Shop
- 38 Traditional Embroidery
- 39 Traditional Embroidery
- 40 Tshering Wangdi Tailoring Shop
- 41 Tshewang Arts Trezo
- 42 U Sonam Tailoring Shop
- 43 Ugyen Tailoring Shop
- 44 Ugyen Thongdrel thangka
- 45 Yangkhil Jordhen Tailoring Shop
- 46 Younphula Dratshang
- 47 Zamlha Tailoring Shop

Industry Partners: JWPTI

- 1 Bhutan Ferro Alloys Ltds
- 2 Bhutan Ferro Alloys Ltds
- 3 BPC,CMD,Begana
- 4 BPC,ESD
- 5 BPC,ESD
- 6 BPC,ESD
- 7 BPC,TOMS,Jigmeling
- 8 DPW Technology
- 9 Druk Menjong Wood Industry,Khasadrupchu
- 10 Druk Wang Alloys Ltd.
- 11 Gyalsung Infra, Khotokha
- 12 Gyalsung Project, Bondema
- 13 Jigme Wangchuk Company
- 14 Lhaki Steel & Rolling Pvt Ltds
- 15 Lian Tsho Specilized Firm
- 16 NHDCL,Thimphu
- 17 Ongdi Timber Industry, Khasadrupchu
- 18 Peldup Specialized Firm
- 19 Pesang Specialized firm
- 20 Sisle Specialized firm
- 21 UND Construction,Troosa
- 22 Vajra Builders Pvt Ltd
- 23 Wood & Furniture Manufacturing Pvt Ltd

Industry Partners: NIZC

- 1 Cheten Dubjur freelance sculpture
- 2 Cheten Tailoring Shop
- 3 Dharma Arts and Crafts
- 4 Dorji Phuntsho Tailoring Shop
- 5 Druk Maha Dewa Furniture
- 6 Gaa-Tyen Lhadri Builders
- 7 Jangchuk Traditional Painting
- 8 Kezang C Wangchuk Sculpture work
- 9 Rada Puensum Handi Craft
- 10 Rada Puensum Traditional Wood Work
- 11 Traditional Boot House

Industry Partners: RDTC

- 1 AMC, Paro
- 2 ARDC, Samtenling
- 3 ARDC, Wengkhari
- 4 FALC, Dechencholing
- 5 NCOA, Yusipang
- 6 NHRDC, Bumthang
- 7 NiPDRC, Gelephu
- 8 NMC, Wangchuk-tabang
- 9 NPDR, Gelephu
- 10 NPHC, Paro
- 11 NRCAN, Bumthang
- 12 NSC, Paro

Industry Partners: RITH

- 1 Como Uma
- 2 Zhawaling Accent

Industry Partners: TTI-C

- 1 Gewog Administration, Darla, Chukha Dzongkhag
- 2 Gewog Administration, Bongo, Chukha Dzongkhag
- 3 Green Bhutan Waste Management
- 4 Green Kitchen & Baking Equipment in Thimphu.
- 5 Lingkhim Wood
- 6 Nawang Wood Works, Bjimana
- 7 Ongdi Timber Industries
- 8 Tashi Norbu Furniture & Karma Fabrication.
- 9 Vajra Builders Pvt Limited

Industry Partners: TTI-K

- 1 Bhutan Hydropower Services Limited(BHSL)
- 2 Dagachu Hydro Power Corporation Limited
- 3 Farm Machinery Corporation Ltd.
- 4 Gyeltshen Steel and Fabrication Works
- 5 Lhaki Steels and Rolling Pvt. Ltd

Industry Partners: TTI-R

- 1 aBit Private Limited
- 2 Automobile Association of Bhutan
- 3 Bhutan Broadcasting Service
- 4 Bhutan Telecom
- 5 Bhutan Telecom
- 6 Dagap Automobile Workshop
- 7 Dejung Tashi Construction,
- 8 Druk Menjong Wood Industry
- 9 ESD, Bhutan Power Corporation
- 10 ESD, Bhutan Power Corporation
- 11 ESD, Bhutan Power Corporation
- 12 ESD, Bhutan Power Corporation
- 13 Kabab Construction Pvt Ltd
- 14 Komputer palace
- 15 MK Private Limited, Thimphu
- 16 Pelkhil Automobile Workshop
- 17 Penden Cement Authority Limited
- 18 Phuntsholing Thromde
- 19 Prime Infotech
- 20 SAT Enterprise
- 21 Ugen Ferro Alloys Pvt. Ltd, Phuntsholing
- 22 Ugen Trading House
- 23 Yeshi Engineering Workshop
- 24 Yurmo substation

Industry Partners: TTI-S

- 1 Apple Builders
- 2 Bhutan Hyundai
- 3 continental Bhutan Enterprise
- 4 Dorji Auto Electrical Repairs
- 5 Druk Trading Equipment
- 6 FMCL
- 7 Gyelsung Project
- 8 Kancha Automobile workshop
- 9 Karma Tenzin (Automobile Association of Bhutan, Thimphu
- 10 Karsam Automobile, Gelephu (Automobile Association of Bhutan)
- 11 KD, Automobile
- 12 Noryang Automobile Workshop
- 13 Parlad Automobile
- 14 Pelden hiring
- 15 Phendey Jungney
- 16 Phuntsho Workshop
- 17 R K Automobile
- 18 Rabten Engineering Workshop
- 19 Rewang Heavy Equipment Service
- 20 Seryang Construction
- 21 SP Automobile (Automobile Association of Bhutan, Paro
- 22 STCBL

- 23 Tandin Auto Electrical
- 24 Tashi Engineering Workshop
- 25 Tata Motors
- 26 Tenzin Automobiles
- 27 Tobgay Automobile Workshop
- 28 umesh Automobile
- 29 Wangchuk Auto Electrical
- 30 Yarphel Heavy Earth Movers
- 31 Yoebar Pvt Ltd
- 32 Zamla Automobile workshop
- 33 Zindra Automobile P/ling and Thimphu

Industry Partners: TTI-T

- 1 ZQ Automobile Works
- 2 AL Electronical and Electronics
- 3 Automobile Sector association of Bhutan(ASAB)
- 4 Brothers Electronic
- 5 Brothers Workshop
- 6 Champa Electronic
- 7 D. W Engineering Workshop
- 8 Dhejung Honda
- 9 Eden Electronics
- 10 GD sharaa Naam Automobile workshop
- 11 GP Electronics
- 12 Karma Automobile Workshop
- 13 Pelyaag Automobile Workshop
- 14 RDP Auto workshop
- 15 Rohit Auto workshop
- 16 STCBL
- 17 STCBL
- 18 TCD Private Limited
- 19 Thinley Auto workshop
- 20 Ugyen Auto Service Centre
- 21 Zamlha Auto workshop
- 22 Zindra Automobile Workshop
- 23 Zindra Automobile Workshop
- 24 Zindra Automobile Workshop

Table 6.22: Profile of DWPSD administered institutes**Technical Training Institute, Chumey**

1	Sector:	Construction; Production
2	Year of Establishment:	2006
3	Total Land Area:	30.66 Acre (Allowable 12.26 Acre)
4	Built Up Area:	2.58 Acre
5	Boarding Capacity:	288
6	Proposed Boarding Capacity:	800 (subject to review)
7	Location	
	Dzongkhag:	Bumthang
	Gewog:	Chumey
	Place:	Domkhar
8	Contact Details	
	Contact Number:	975-3-641300
	Email Address:	tti.chumey@gmail.com
	Website:	http://www.ttichumey.bt/

Technical Training Institute, Khuruthang

1	Sector:	Energy; Manufacturing
2	Year of Establishment:	2003
3	Total Land Area:	4.45 Acre (Allowable 1.78 Acre)
4	Built Up Area:	1.2 Acre
5	Boarding Capacity:	250
6	Proposed Boarding Capacity:	250 (subject to review)
7	Location	
	Dzongkhag:	Punakha
	Gewog:	Guma
	Place:	Khuruthang
8	Contact Details	
	Contact Number:	975 02 584514/ 584515 /584634
	Email Address:	tti.khuruthang@gmail.com
	Website:	www.ttikhuruthang.bt

Technical Training Institute, Rangjung

1	Sector:	Energy, ICT, Production; Automotive
2	Year of Establishment:	2003
3	Total Land Area:	10.514 Acre (Allowable 6.31 Acre)
4	Built Up Area:	1.2 Acre
5	Boarding Capacity:	384
6	Proposed Boarding Capacity:	500 (subject to review)
7	Location	
	Dzongkhag:	Trashigang
	Gewog:	Shongphu
	Place:	Buna
8	Contact Details	
	Contact Number:	04 561198
	Email Address:	tti.rangjung@gmail.com
	Website:	http://www.ttirangjung.bt

Technical Training Institute, Samthang

1	Sector:	Automobile; ICT
2	Year of Establishment:	2003
3	Total Land Area:	31.58 Acres
4	Built Up Area:	2.76 Acre
5	Boarding Capacity:	324
6	Proposed Boarding Capacity:	700 (subject to review)
7	Location	
	Dzongkhag:	Wangduephodrang
	Gewog:	Theedtsho
	Place:	Samthang
8	Contact Details	
	Contact Number:	975 77105319 / 77104982
	Email Address:	ttisamthang@tti.gov.bt
	Website:	http://ttisamthang.bt

Technical Training Institute, Thimphu

1	Sector:	Automobile; ICT
2	Year of Establishment:	2008
3	Total Land Area:	6.77 Acre (Allowable 2.03 Acre)
4	Built Up Area:	1.89 Acre
5	Boarding Capacity:	304 (Serbithang)
6	Proposed Boarding Capacity:	581 (subject to review)
7	Location	
	Dzongkhag:	Thimphu
	Gewog:	Chang
	Place:	Serbithang
8	Contact Details	
	Contact Number:	975-77109945 / +975-2- 336348
	Email Address:	ttithimphu@tti.gov.bt
	Website:	http://www.ttithimphu.bt

Jigme Wangchuck Power Training Institute, Sarpang

1	Sector:	Construction; Production; Energy
2	Year of Establishment:	2014
3	Total Land Area:	26.75 acres (Allowable 8.03 Acre)
4	Built Up Area:	5.23 acres
5	Boarding Capacity:	384
6	Proposed Boarding Capacity:	700 (subject to review)
7	Location	
	Dzongkhag:	Sarpang
	Gewog:	Dekiling
	Place:	Dolungang
8	Contact Details	
	Contact Number:	77673105 / 77109569/ 77109568
	Email Address:	jwpti@tti.gov.bt
	Website:	www.jwpti.bt

Rural Development Training Centre, Zhemgang

1	Sector:	Agriculture
2	Year of Establishment:	2008
3	Total Land Area:	51.44 acres
4	Built Up Area:	10 acres
5	Boarding Capacity:	70
6	Proposed Boarding Capacity:	200 (subject to review)
7	Location	
	Dzongkhag:	Zhemgang
	Gewog:	Trong
	Place:	Trong
8	Contact Details	
	Contact Number:	975-03-741350
	Email Address:	rdtczhemgang@gmail.com
	Website:	www.rdtc.gov.bt

College of Zorig Chusum, Trashiyangtse

1	Sector:	Traditional Arts and Crafts
2	Year of Establishment:	1997
3	Total Land Area:	8.50 Acre (Allowable 3.54 Acre)
4	Built Up Area:	0.75 Acre
5	Boarding Capacity:	164
6	Proposed Boarding Capacity:	250 (subject to review)
7	Location	
	Dzongkhag:	Trashiyangtse
	Gewog:	Yangtse
	Place:	Trashiyangtse
8	Contact Details	
	Contact Number:	975 04 781141
	Email Address:	izc.tashiyangtse@gmail.com
	Website:	www.tizc.bt

National Institute for Zorig Chusum, Thimphu

1	Sector:	Traditional Arts and Crafts
2	Year of Establishment:	1971
3	Total Land Area:	1.17 Acre (Allowable 0.35 Acre)
4	Built Up Area:	0.45 Acre
5	Boarding Capacity:	100
6	Proposed Boarding Capacity:	100 (subject to review)
7	Location	
	Dzongkhag:	Thimphu
	Gewog:	Thimphu Thromde
	Place:	Kawajangsa
8	Contact Details	
	Contact Number:	975 02 322302
	Email Address:	izc.thimphu@gmail.com
	Website:	www.nizc.gov.bt

Royal Institute for Tourism and Hospitality

	Sector:	Hospitality and Tourism
	Year of Establishment:	2010
	Total Land Area:	25.9 Acres
	Built Up Area:	
	Boarding Capacity:	100
	Proposed Boarding Capacity:	300 (subject to review)
	Location	
	Dzongkhag:	Thimphu
	Gewog:	Thimphu Thromde
	Place:	Motithang
	Contact Details	
	Contact Number:	975 02 331272/331275/331276
	Email Address:	info@rith.edu.bt
	Website:	http://rith.edu.bt

Contact us

www.education.gov.bt/dwpsd

www.blmis.gov.bt/tvet

wpid@moesd.gov.bt

**Workforce Planning and Information Division
Department of Workforce Planning and Skills Development
Ministry of Education and Skills Development**

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