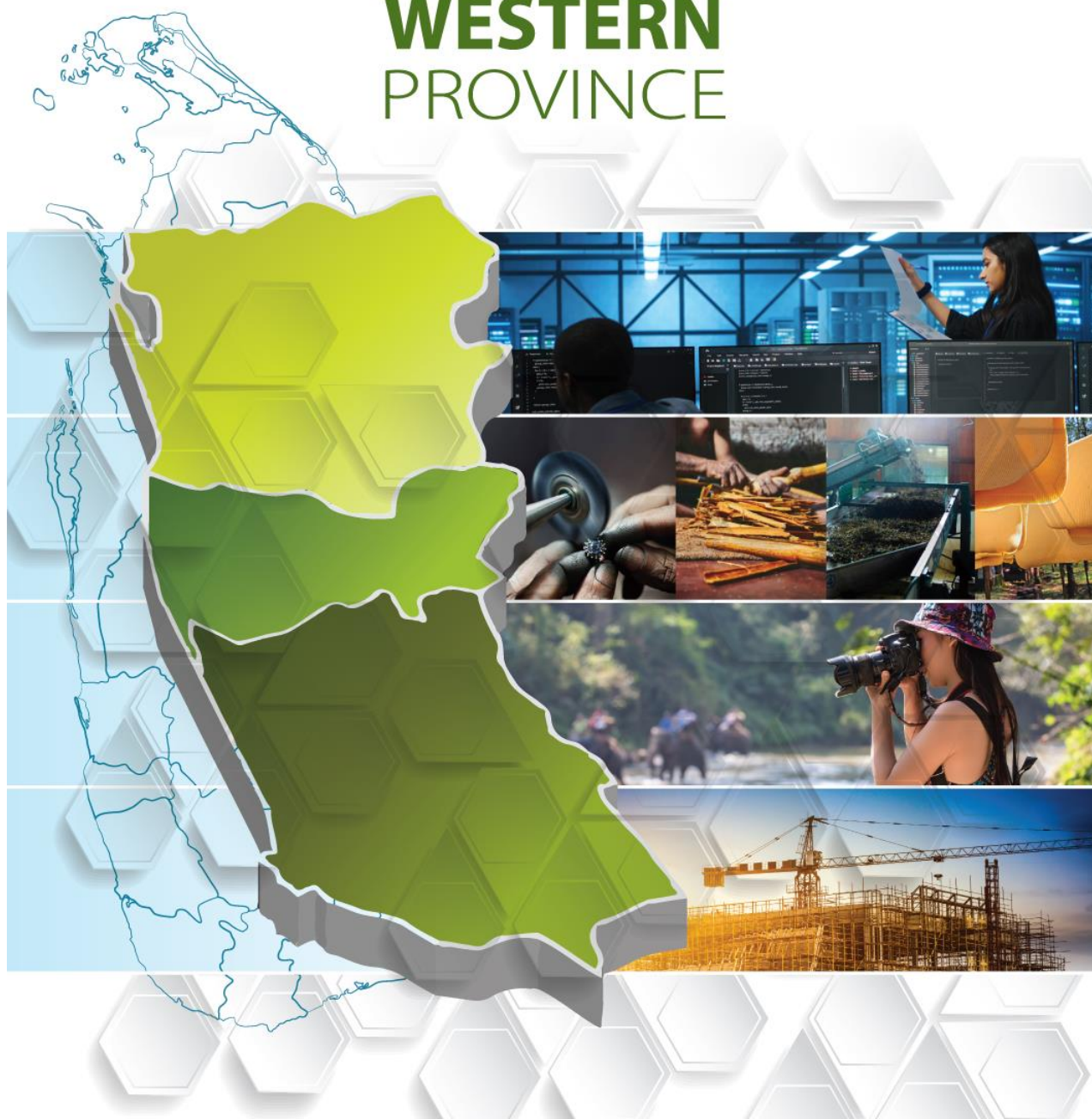


VOCATIONAL EDUCATION AND TRAINING PLAN (VET PLAN)

For

WESTERN PROVINCE



Vocational Education and Training (VET) Plan for the Western Province

List of Contents

Chapter 1: Introduction	13
1.0 Overview	13
1.1 Rationale	14
1.2 Objectives.....	14
1.3 Methodology.....	14
1.3.1 Employment (Industry) Demand Survey.....	14
1.3.1.1 Sample Design.....	14
1.3.1.2 Sampling Technique.....	15
1.3.1.3 Data Collection.....	15
1.3.1.4 Sources of Data	15
1.3.1.5 Data Analysis.....	15
1.3.1.6 Limitations	15
Chapter 2: Socio-economic Overview and the Literature Review of the province	16
Socio-economic Environment of Western Province	16
2.0 Overview of the Province.....	16
2.1 Administrative Structure.....	16
2.2 Geography and Climate	17
2.3 Demography in Western Province	18
2.4 Population Distribution by Gender	19
2.5 Population Distribution by Sector- Urban and Rural	19
Economic Structure, Employment and Income	20
2.7 SWOT Analysis of the Western Province relevant to the TVET Sector	22
2.8 On-going and future Development in the Province.....	23
2.8.1 Western Megapolis Plan – Strategic Importance	23
2.8.2 Port City Development.....	23
2.8.3 Expansion of Katunayake Airport - Opening of the Dedicated Access Road to the Passenger Terminal of Bandaranaike International Airport (BIA).....	24
2.8.4 Kadawatha –Meerigama Expressway	24
2.9 Importance of Preparing Vocational Education and Training (VET) Plans.....	25
2.10 Industry Sector based VET Plans.....	25
2.11 Provincial VET Plans	25
Literature Review	26
2.11 Vocational Education Training (VET) Plans	26

2.12 Summary of Eight Provincial VET plans.....	26
2.13 Importance of Vocational Education and Training (VET) Plans	27
2.14 Addressing Skills Mismatches	28
2.15 Promoting Lifelong Learning	28
2.16 Supporting Industry Growth and Innovation.....	28
2.17 Meeting Global Challenges	28
2.18 Best VET systems in the world	28
2.18.1 Germany.....	29
2.18.2 Switzerland.....	29
2.18.3 Denmark.....	29
2.18.4 Singapore	29
2.18.5 Australia	30
2.19 Divergent Labour Market Trends: Contemporary and prospected	30
Chapter 3: Data Analysis (Employment /Industry Demand Survey).....	34
3.0 Economic Growth and Labour Market Trends in Selected Industry Sectors	34
3.1 Descriptive Analysis of Employment Demand Survey by Sectors.....	35
3.1.1 Manufacturing Sector	35
3.1.2 Hotel Sector	39
3.1.3 ICT Sector	42
3.1.4 Construction Sector	45
3.1.5 Employment.....	48
3.1.6 Trends and Forecast of Selected Four Industry Sectors	50
3.1.7 Trends and Forecast of Highly Employed Occupations of Each Industry Sector in the Year 2023	51
3.2 Livelihood Occupations in the Informal sectors of the Western Province	59
Chapter 4: Supply of Skilled Labour to the Labour Market – Training Profile	65
4.0 Overview	65
4.1 TVET institute Network.....	65
4.2 The Mix of NVQ Courses Available in Districts.....	70
4.2.1 Colombo District	70
4.2.2 Gampaha District	71
4.2.3 Kalutara District	72
4.3 Annual Training Output from TVET Providers.....	73
4.4 Apprenticeship Training	78

4.5 Availability of Teachers and Assessors in Western Province	81
4.5.1: Availability of Teachers/Trainers in Vocational Training Centers in Western Province – 2023	81
4.5.2: Availability of NVQ Assessors.....	81
4.6 Extent of implementation of NVQ Framework in the Western province	82
4.6.1: NVQ Certified Skilled Persons in the Province	82
Chapter 5: Key Highlights and Action Plan for the TVET Sector	84
5.0 Key Highlights.....	84
5.1 Action Plan for the TVET Sector	85

List of Figures

Figure 3. 1 : Percentage Share of GDP by Industry Sectors, 2015 – 2023 34

Figure 3. 2: Employment Trends in Selected Industry Sectors, 2013 – 2022 35

Figure 3. 3: Percentage Distribution of Industries by Main Business Activity 36

Figure 3. 4: Percentage Distribution of Performance among Employees Who Came from Technical and Vocational Centers..... 36

Figure 3. 5: Percentage Distribution of Performance of Employees by Supply Sources 37

Figure 3. 6: Percentage distribution of expect competencies from job seekers coming from technical and vocational centers..... 37

Figure 3. 7: Percentage Distribution of New Technology Trends Available in the Manufacturing Industries 38

Figure 3. 8: Percentage Distribution of Hotels by Star Category 39

Figure 3. 9: Percentage Distribution of Interest in recruiting Employees by supply sources with ranking... 40

Figure 3. 10: Percentage Distribution of Performance of Employees by Supply Sources 40

Figure 3. 11: Percentage distribution of expect competencies from job seekers coming from technical and vocational centers..... 41

Figure 3. 12: Percentage Distribution of Skills Requirements and New Technology Trends Available in the Hotel Industries..... 41

Figure 3. 13: Percentage Distribution of Establishment Ownership..... 43

Figure 3. 14: Percentage Distribution of Performance of Employees by Supply Sources 43

Figure 3. 15: Percentage distribution of expect competencies from job seekers coming from TVET institutes 44

Figure 3. 16: Percentage Distribution of New Technology Trends Available in the ICT Industries 44

Figure 3. 17: Percentage Distribution of Performance of Employees by Supply Sources 46

Figure 3. 18: Percentage distribution of expect competencies from job seekers coming from TVET institutes 46

Figure 3. 19: Percentage Distribution of New Technology Trends Available in the Construction Industries47

Figure 3. 20: Percentage Distribution of Employees by Main Occupational Category and Sector - 2023 ... 48

Figure 3. 21: Percentage Distribution of Employees by Educational Requirement and Sector - 2023 49

Figure 3. 22: Distribution of Number of Employments by Sector (from 2019 to 2023) 49

List of Tables

Table 3. 1: High Demanded Occupations in the Manufacturing Industries.....	38
Table 3. 2: High Demanded Occupations in the Hotel Industries.....	42
Table 3. 3: High Demanded Occupations in the ICT Industries.....	45
Table 3. 4: High Demanded Occupations in the Construction Industries.....	47
Table 3. 5: Percentage Distribution of Employees by Main Occupational Category and Sector - 2023.....	48
Table 3. 6: Percentage Distribution of Employees by Educational Requirement and Sector - 2023.....	48
Table 3. 7: Highly Employed Occupations in the Year 2023	51
Table 3. 8: Highly Employed Occupations in the Year 2023	53
Table 3. 9: Highly Employed Occupations in the Year 2023	55
Table 3. 10: Highly Employed Occupations in the Year 2023	57
Table 3. 11: Livelihood Occupational Categories by Sub sector	59
Table 3. 12: Demanded Occupations / Trades / Fields in the Western Province	60
Table 3. 13 : Livelihood Occupations/ Sub Categories Requiring Vocational & Technical Training in the Western Province.....	62
Table 4. 1: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Colombo District in 2023	66
Table 4. 2: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Gampaha District in 2023	67
Table 4. 3: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Kalutara District in 2023	67
Table 4. 4: Dispersion of Schools and Vocational Training Centers in Colombo District	68
Table 4. 5: Dispersion of Schools and Vocational Training Centers in Gampaha District	69
Table 4. 6: Dispersion of Schools and Vocational Training Centers in Kalutara District	69
Table 4. 7: NVQ Courses enrolled students in Colombo district in 2023	70
Table 4. 8: NVQ Courses for which no enrollment has been reported in 2023 in Colombo District	70
Table 4. 9: NVQ Courses enrolled students in Gampaha district in 2023	71
Table 4. 10: NVQ Courses for which no enrollment has been reported in 2023 in Gampaha District	71
Table 4. 11: NVQ Courses, enrolled students in Kalutara district in 2023	72
Table 4. 12: NVQ Courses for which no enrollment has been reported in 2023 in Kalutara District	72
Table 4. 13: Training Performance by Industry Sector and Year	73
Table 4. 14: Percentage Share of the Training Performance by District Province and Year	74
Table 4. 15: Recruitments and Completions in Training Providers in Western Province by Gender in 2022	74
Table 4. 16: Recruitments and Completions in Western Province by Training Provider and District in 2022	75
Table 4. 17: Top 25 Course Completion in Western Province in Construction Sector in 2022.	75
Table 4. 18: Top 25 Course Completion in Western Province in ICT Sector in 2022	76
Table 4. 19: Top 25 Course Completion in Western Province in Manufacturing Sector in 2022	77
Table 4. 20: Top 20 Course Completion in Western Province in Accommodation and Food Services Activities Sector in 2022	77
Table 4. 21: Recruitment & Completion for Apprenticeship Training in Western Province by Year	78
Table 4. 22: Recruitment & Completion for Apprenticeship Training by Certificate Type, and district from 2020 to 2022	79

Table 4. 23: Top 10 Occupations with the highest supply for Apprenticeship Training in Manufacturing Sector in the Western province in 2022	79
Table 4. 24: Top 10 occupations with the highest supply for Apprenticeship Training in Construction Sector in the Western province in 2022	80
Table 4. 25: Top 10 occupations with the highest supply for Apprenticeship Training in Accommodation and food service activities Sector in the Western province in 2022	80
Table 4. 26: Number of Vocational Teachers by District in 2022	81
Table 4. 27: Number of Assessors by District and Province in 2023	81
Table 4. 28: Issuing of NVQ Certificates by Year and District (Institutional Training – CBT)	82
Table 4. 29: NVQ qualified Skilled Personnel in the Colombo District by Occupation and Training Provider for Selected Industry Sectors in 2023	82
Table 4. 30: NVQ qualified Skilled Personnel in the Gampaha District by Occupation and Training Provider for Selected Industry Sectors in 2023	83
Table 4. 31: NVQ qualified Skilled Personnel in the Kalutara District by Occupation and Training Provider for Selected Industry Sectors in 2023	83

List of Abbreviations

AASL	Airport and Aviation Services (Sri Lanka) (Private) Limited
AOA	Area of Authority
BIA	Bandaranaike International Airport
CBT	Competency Based Training
CGTTI	Ceylon German Technical Training Institute
DTET	Department of Technical Education and Training
GCI	Global Compliance Institute
GJRTI	Gem and Jewelry Research and Training Institute
ICT	Information and Communication Technology
LMI	Labour Market Information
NAITA	National Apprentice and Industrial Training Authority
NCS	National Competency Standard
NYSC	National Youth Services Council
SEZ	Special Economic Zone
SLITHM	Sri Lanka Institute of Tourism and Hotel Management
TVEC	Tertiary and Vocational Education Commission
TVET	Technical and Vocational Education and Training
VTA	Vocational Training Authority
WPC	Western Provincial Council

Executive Summary

In an effort to advance and broaden Technical and Vocational Education and Training (TVET) in Sri Lanka, the Tertiary and Vocational Education Commission (TVEC) has carried out a number of initiatives since 1999. Developing VET plans for growing industry sectors and Provincial VET Plans, which describe current training profiles, industry sector trends, and a plan for future development are among the significant initiatives commenced by the TVEC. In 2008, the TVEC developed the first province-specific VET plan for Sabaragamuwa province. The TVEC then developed VET plans for all other provinces, with the exception of the Western province. The Chief Minister of the Western province requested that this VET plan, which is the ninth (09th) provincial VET plan from the TVEC, be prepared, and it was done so under the direction of the Ministry in charge of the TVET sector.

In the context of the province's extensive development efforts, the main objectives of developing this VET plan for the Western province are to identify the supply of and demand for skills and ensure the availability of skilled labour for the expanding and developing industries of the province. Youth in the province will benefit from this VET planning exercise by being able to fulfill their career goals.

Initially, the province's demand for and supply of labour were to be studied. Having the large number of establishments and the wide range of industry sectors, the Western Province's VET plan was only able to develop for four industries in accordance with demand. The industries they belonged to were Manufacturing, ICT, Construction, and Hotel and Tourism. According to the Department of Census and Statistics, there were 3044 formal establishments in the population, and the demand survey's sample size was restricted to 350. Due to financial constraints, a supply side survey of TVET sector training providers and stakeholders was not conducted; however, supply side analysis was conducted using the TVEC database and LMI publications. In addition, three (03) District Planning Workshops were conducted, during time, more pertinent data was acquired, mainly regarding the specifics of the livelihood occupations and the challenges they encounter.

A socioeconomic overview and literature review were conducted to explore province development work, previously developed provincial VET plans, the importance of developing VET plans and their benefits, and the best VET systems in the world.

The attacks on Easter Sunday, the COVID-19 pandemic's negative effects, and the country's economic crisis caused Sri Lanka's economy to shrink annually. Along with the entire Sri Lankan tourism industry, the pandemic had a major effect on physical-based economic activities like manufacturing, transportation, and construction. The pandemic-induced spike in demand for voice and data services, however, was very beneficial to the ICT sector as more people turned to online learning, entertainment, and work-from-home options.

The overall results of the employment survey show that employment is trending upward in the hotel and tourism, manufacturing, and ICT sectors, while employment in the construction sector is trending downward as a result of the unstable economy.

Employers stressed how critical it is for new employees to have the following qualities: commitment, attitude, personality, and soft skills. They said that in order to meet the needs of the business environment, those skills needed to be developed in TVET centers. The manufacturing sector brought

attention to the need for TVET centers to update and deliver their curricula to reflect the most recent technological advancements and industry trends.

English language competency and soft skills are critical, and many employers in the hotel industry highlighted this, emphasizing that TVET centers are the best places to develop these competencies. TVET students must undergo this training in order to communicate with local and foreign clients in a way that is appropriate for star-rated hotels. Most hotel industries make use of technology trends and multiskills requirement. In order to ensure that their TVET programmes are current with the newest technological trends and complement the technologies being utilized in the hotel industries, it is important that TVET centers offer and improve these programmes.

About half of the industries in the ICT sector use artificial intelligence and machine learning, Internet of Things (IOT), cyber security, and user interface/user experience programming. Because of this, it is imperative that TVET institutes constantly update and improve their training curricula to reflect the latest advancements in ICT industry technologies.

Precast construction technology, modular construction, pre-engineering/pre-fabricated building systems, steel construction, computer-aided programming systems, and load-bearing masonry wall construction technologies are used by nearly half of the construction industry. To make sure that they are current with the newest technological trends and in line with the technologies being used in the industries, TVET centers must offer and improve their programmes.

The survey results indicate that professional jobs such as software developer, software engineer, web developer, etc., which call for a degree level education, are the most in-demand occupations in the ICT sector. However, certificate-level computer courses like Computer Application Assistant, ICT Technician, etc. are in high demand in the TVET sector. Therefore, it is imperative to improve TVET programmes up to the degree level in order to align with industry demand and reduce these skills gaps and mismatches.

The majority of workers in the province are employed in the informal sector, which is significant for the lower income groups in society despite the wide variety of livelihood occupations that exist there. Notably, women make up over 70% of workers in livelihood occupations because these jobs enable them to work outside the home while still taking care of their families. Nevertheless, it seems that those working in these fields lack the abilities to grow their businesses to new heights, stressing the necessity of receiving training in skill development. Consequently, meeting the training requirements can greatly increase the Western Province's prospects for employment. The development and implementation of these training programmes heavily relies on the efforts of the Provincial Council, industry partnerships, and TVET institutes.

The Western Province had 772 TVEC-registered training centers in operation as of December 31, 2023. Of the total number of institutions, 599 are private sector training institutes and 173 are public and non-governmental organizations. The fact that there are 203 institutes in the Colombo Municipal Council area is noteworthy.

While Baduraliya and Millaniya DS divisions in the Kalutara district lack a single registered institute, every DS division in the Colombo and Gampaha districts has at least one registered training institute. In order to give school leavers in the aforementioned DS divisions access to TVET, relevant authorities must take the required actions.

The province's TVEC database indicates that there are a number of NVQ courses that have no students enrolled in 2023. Relevant training institutes must take the required steps to accommodate school leavers and, if needed, provide trainer availability. As per reports, the Western province recorded the highest number of trainees recruited and completed between 2020 and 2022. The most recruitments and completions were recorded in the Colombo district, whereas the numbers were comparatively low in Kalutara and Gampaha.

Even though Western Province has the most establishments, when compared to institutional-based training, it is reported that the province's recruitment and completion rates for apprenticeship-based training record a lower percentage (20% in 2022). Since there are many opportunities in the Western Province to recruit trainees under the apprenticeship mode, steps must be taken to increase recruitment.

This report includes an action plan for implementing the VET plan. To coordinate and oversee the province's implementation of the VET plan, Provincial and District TVET steering committees are to be formed.

In order to carry out the initiatives outlined in the VET plan, the TVEC will continue to support and collaborate with the Western Provincial Council, the province's District Secretariats, and other relevant parties.

Chapter 1: Introduction

1.0 Overview

The Tertiary and Vocational Education Commission (TVEC), established by the Tertiary and Vocational Education (TVE) Act No. 20 of 1990, has main objectives, as listed below:

(1) The general objects of the Commission shall be

(a) The planning, co-ordination and development of tertiary education and vocational education at all levels in keeping with human resource needs of the economy;

(b) The development of a nationally recognized systems for granting of tertiary education awards and vocational education awards including certificates, and other academic distinctions; and

(c) The maintenance of: academic and training standards in institutes, agencies and all other establishments providing tertiary education and vocational education.

(2) In the development of tertiary education and vocational education the Commission shall be guided by the directive principles set out in sub-paragraph (h) of paragraph (2) of Article 27 of the Constitution of the Democratic Socialist Republic of Sri Lanka.

As part of its efforts to achieve objective (a), the TVEC has been developing and revising Vocational Education and Training (VET) plans for key industry sectors of Sri Lanka's economy at the national level since 1999. Section 11 (4) of the (TVE) Act No. 20 of 1990 allows the TVEC to prepare Provincial Vocational Education and Training Plans upon requests made by provincial Chief Ministers for the development of tertiary and vocational education in their respective provinces.

To achieve those objectives, the TVEC has conducted a range of activities since 1999 to promote and expand vocational education and training in Sri Lanka. One of the important activities initiated by the TVEC is the preparation of Vocational Education and Training (VET) plans for key industry sectors of the economy, as well as Provincial Vocational Education and Training Plans that outline current training profiles, industry sector trends, and a plan for future development.

Provincial-level training plans are critical for revitalizing training provision and identifying need-based training requirements. Many public, private, and non-governmental organization (NGO) training providers provide VET training at the provincial level. Improvements and expansion of VET necessitate rationalization of training programs and the resources of these various training providers. As a result, the provincial VET plan provides guidelines, as outlined in the Tertiary and Vocational Education Act, to ensure rationalized training implementation and future expansion of VET at the provincial level.

The VET plan is developed with the input and participation of the TVEC, training providers, relevant provincial and local governments, industry sectors and other stakeholders. Once His Excellency the President approves the VET plan, with or without amendments, in consultation with the Hon Minister in charge of vocational education and training, the provincial administration takes ownership of it, holding all training providers in the province accountable for their adherence to the VET Plan's effective implementation. The progress of implementation of the VET plan will be reviewed regularly at district and provincial progress review meetings attended by civil administration and training providers.

A provincial VET plan outlines the strategies to bridge the gap between demand for and supply of skilled man power and it will provide significant benefits to all its stakeholders i.e. industry sectors, Tertiary and Vocational Education and Training (TVET) providers and the youth aspiring to undergo training. All its stakeholders i.e. industry sectors, TVET providers and the youth aspiring to undergo training, benefit from such planning. VET plan will also recommend the mechanism for effective coordination of relevant stakeholders during VET plan implementation. TVET institutes will thus, be able to utilize their resources to conduct demand driven programs with a higher degree of rationalization.

1.1 Rationale

The first VET plan developed by TVEC for a province was for Sabaragamuwa province in 2008. Then, TVEC developed VET plans for all provinces except the Western province. This VET plan for the Western province, the TVEC's ninth (09th) provincial VET plan, was prepared at the request of the Western province's Chief Minister and under the direction of the Ministry in charge of the TVET sector.

The Government's initiatives in the Western Province, especially in the Colombo district with the Port-city development, are predicted to drive the economy to remarkable growth rates. The province's economic growth will necessitate the employment of more and diverse skilled workers. This provincial VET plan will help provide direction for training providers operating in the province and establish an integrated programme for the development of its TVET system, allowing it to effectively meet the challenges of providing the skilled human resources required to man the province's vibrant economic activities.

1.2 Objectives

The primary goal of developing this VET plan for the Western province is to identify the demand for and supply of skills needs within the context of the province's large-scale development work, as well as to ensure the availability of trained human resources for the province's growing economic sectors. This exercise in VET planning will also help youth in the province realize their career aspiration.

The key activities carried out during the process of developing the VET plan were:

- Analyzing socio-economic trends in four (04) key industry sectors (manufacturing, ICT, construction, and hotel and tourism) across three districts in Western province
- Identify demand and supply of skilled personnel in four major industry sectors in the Western province
- Identify skill gaps for four major industry sectors and livelihood occupations in Western province
- Propose a five-year plan to address skill gaps in occupations and other characteristics
- Identify and address supply-side labour market issues.

1.3 Methodology

1.3.1 Employment (Industry) Demand Survey

1.3.1.1 Sample Design

Formal industrial establishments (industries with documented accounts and more than 10 employees or incorporated) are considered when designing the sample. According to current job demand, four industry sectors—tourism, construction, manufacturing, and ICT—are considered the most demanding for selecting the sample.

Sampling Unit: It is the establishment which is defined as a unit engaged in single or related activities of industry, Trade and Services in one location under a single ownership or control. Target Population: All formal *industrial establishments in the Western province (3,044 establishments)*

Sample Size: 350 establishments

Sample Frame: Economic Census 2013/14

Yamane's Formula

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{3044}{1 + 3044(0.05^2)}$$

$$\underline{n = 354}$$

1.3.1.2 Sampling Technique

Stratified Random Sampling technique has been used to industries according to industry type, size and the geographical area

1.3.1.3 Data Collection

Relevant information related to skills demand by industry has been collected through the structured (interview) questionnaire survey.

1.3.1.4 Sources of Data

- Department of Census and Statistics
- Trade Chambers, Trade Associations and Employers' Associations
- Industry Sector Councils

1.3.1.5 Data Analysis

Various statistical methods have been used to analyze data using SPSS and MINITAB statistical software packages.

1.3.1.6 Limitations

This VET plan was limited to developing for selected four industries as per the demand. They were Manufacturing, ICT, Construction, and Hotel and Tourism industry sectors. Sample size for the demand side survey was limited to 350 industry establishments. The supply side survey for TVET sector training providers and stakeholders was not done due to the limited budget. However, the TVEC database and LMI publications have been used for supply side analysis.

Chapter 2: Socio-economic Overview and the Literature Review of the province

Socio-economic Environment of Western Province

2.0 Overview of the Province

The Western Province is Sri Lanka's most socioeconomically developed region, accounting for more than 50% of the country's GDP. Although in terms of land area, Western province only constitutes about 6 % of the total land area in Sri Lanka, it accommodates the highest population, which is about 29 % of total population of Sri Lanka.

Western Province's mission is to lead in agricultural, agrarian development, minor irrigation, industries, and environmental activities that will improve the population's living conditions. The province is considered the island's tourism heartland. It serves as the hub for all tourism service distribution channels and the transportation of foreign tourists throughout Sri Lanka. Overall, the Western Province inherits significantly more resources than many other provinces in Sri Lanka.

2.1 Administrative Structure

Western Province encompasses the administrative districts of Colombo, Gampaha and Kalutara, which together form a commercial hub linked with a major airport and the harbour. It also includes 49 administrative bodies, seven (07) municipal councils, 14 urban councils and 28 Pradeshiya Sabhas, all of which assist in the administration of their respective levels.

The Chief Minister heads the provincial administration. The five ministries listed below administer the functions entrusted through the devolution of power to provincial councils by the constitution of the country.

1. Chief Ministry- Ministry of local government, economic promotion, power & energy, environmental affairs, water supply & drainage & tourism, western province
2. Ministry of education cultural & arts sports & youth affairs & information technology western province
3. Ministry of provincial roads, transport, co-operative development and trade, housing and construction, estate infrastructure facilities, industry and rural development, western province
4. Ministry of agriculture, land, irrigation, fisheries, animal production & health and agrarian development, Western province
5. Ministry of health, indigenous medicine, social welfare, probation and child care services, women affairs and council affairs, Western province

Table 2. 1: Provincial Administration Agencies in the Western Province

District	No. of GN Divisions	No. of DS Divisions	Pradeshiya Sabha	Urban Council	Municipal Council
Colombo	557	13	3	5	5
Gampaha	1,177	13	12	5	2
Kalutara	762	14	13	4	-
WP	2,496	40	28	14	7

Source: District Statistical Handbooks-2022, 2023

The Governor of the Western province through the Provincial Public Service exercises the powers of appointment, transfer, dismissal, and disciplinary control of the provincial officers.

There are 49 Local Authorities administering and delivering the local government services in the Western province. They are the 7 Municipal Councils, 14 Urban Councils and 28 Pradeshiya Sabhas coming under the purview of the Commissioner of Local Government assisted by Regional Assistant Commissioners of Local Government. The Western province also constitutes three administrative districts, Colombo, Gampaha, and Kalutara comprising 40 Divisional Secretariat (DS) Divisions with 2,496 Grama Niladhari Divisions(GN) in total as shown in Table 2.1. (SPDSh-2022,2023)

Local Authorities are the development agents in their respective areas and they are playing a greater role in development activities at local level in collaboration with Central and Provincial government agencies. The three District Secretariats coordinate certain development activities directed by the Central Government.

Table 2. 2: Divisional Secretariats with number of Grama Niladhari Divisions in Western Province

Colombo District	Gampaha District	Kalutara District
• Colombo – (35)	• Attanagalla – (151)	• Agalawatta – (34)
• Dehiwala – (15)	• Biyagama – (49)	• Bandaragama – (59)
• Homagama – (81)	• Divulapitiya – (123)	• Beruwala – (82)
• Kaduwela – (57)	• Dompe – (133)	• Bulathsinhala – (54)
• Kesbewa – (73)	• Gampaha – (101)	• Dodangoda – (45)
• Kolonnawa – (46)	• Ja-Ela – (57)	• Horana – (61)
• Kotte – (20)	• Katana – (79)	• Ingiriya – (31)
• Maharagama – (41)	• Kelaniya – (37)	• Kalutara – (87)
• Moratuwa – (42)	• Mahara – (92)	• Madurawela – (33)
• Padukka – (46)	• Minuwangoda – (121)	• Mathugama – (57)
• Ratmalana – (13)	• Mirigama – (149)	• Millaniya – (44)
• Seethawaka – (68)	• Negombo – (39)	• Palindanuwara – (43)
• Thimbirigasyaya – (20)	• Wattala – (46)	• Panadura – (72)
		• Walallavita – (60)

Source: District Statistical Handbooks-2022,2023. Nos indicated within brackets are the number of GN Divisions

Table 2.2 indicates the list of Divisional Secretariates in the three districts, each one with the number of Grama Niladhari divisions (parenthesis).

2.2 Geography and Climate

Western Province is located in the southwest of Sri Lanka. It has an area of 3,684 square kilometres (1,422 sq mi). The province is surrounded by the Laccadive Sea (Lakshadweep sea) to the west, North

Western Province to the north, Sabaragamuwa Province to the east and the Southern Province to the south.

The Western Province is vulnerable to recurrent flooding as a result of an increase in average rainfall coupled with heavier rainfall events, with knock-on impacts on the infrastructure, utility supply, and the urban economy of the Province. As the most urbanised province in Sri Lanka, these climate events pose a number of problems due to the rapid urban growth the province has undergone.

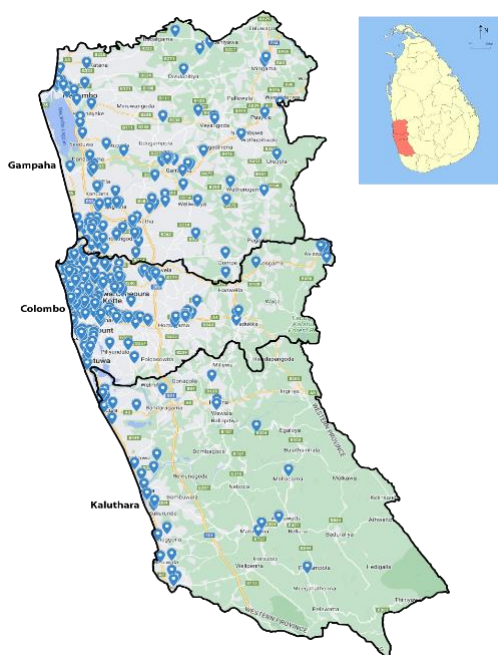


Figure 2.1: Map of the Province

2.3 Demography in Western Province

The Western province being the smallest with 3,684 Sq km and a estimated mid year population of 6,219,000 in 2021. In comparison with other provinces as Table 2.3 indicates, the Western province has a population density of 1,673 per sq km. This is the largest population density in the country followed by Central province with 490. The lowest population density of 132 is in the North Central province.

Table 2. 3: Land Area and Population Densities in All Provinces

Province	Total Area in Sq.km	Population'000	Population Density /Population per Sq km
Western	3,684	6,219	1,673
Central	5,674	2,811	490
Southern	5,544	2,696	481
Sabaragamuwa	4,968	2,088	391
North Western	7,888	2,592	324
Eastern	9,996	1,783	175
Uva	8,500	1,400	163
Northern	8,884	1,165	138

Province	Total Area in Sq.km	Population'000	Population Density /Population per Sq km
North Central	10,472	1,402	132
Sri Lanka	65,707	22,156	334

Source: Estimated mid year population-Department of Census and Statistics, 2021 and VET Plan Specific Calculations

2.4 Population Distribution by Gender

Table 2. 4: Population of Province by District and Gender in 2021

District	Total Population	Gender		Sex Ratio
		Male	Female	
Colombo	2,479,518	1,216,608	1,262,910	96.3
Gampaha	2,442,512	1,183,611	1,258,901	94.0
Kalutara	1,296,003	627,118	668,885	93.8
WP	6,218,033	3,027,337	3,190,696	94.9

Source: Department of Census and Statistics

Table 2.4 shows the gender composition of the population in the three districts in the Western province. Accordingly, the population in Colombo district is the highest with around 2,480,000 and the lowest in Kalutara district with 1,296,000. The population in Gampaha district is around 2,443,000.

A useful measure of sex composition is the sex ratio, which is defined as the number of males per 100 females in the population. The figures indicate that the number of females is more than the number of males in all three districts in the Western province and this holds true for the whole country.

2.5 Population Distribution by Sector- Urban and Rural

According to the current definition, urban sector comprises all Municipal and Urban Council areas.

Table 2. 5: Population Distribution by Sector- Urban and Rural

District	Sector						Total Population	Area Sq km	Population Density
	Urban		Rural		Estate				
	Number	%	Number	%	Number	%			
Colombo	1,923,262	77.6	547,817	22.1	8,439	0.3	2,479,518	699	3,669
Gampaha	381,739	15.6	2,059,508	84.3	1,265	0.1	2,442,512	1,387	1,822
Kalutara	115,679	8.9	1,140,410	88.0	39,314	3.0	1,296,003	1,598	822
WP	2,420,680	38.9	3,747,735	60.3	49,618	0.01	6,218,033	3,684	1,673

Source: Department of Census and Statistics

Table 2.5 shows the population distribution according to the urban and rural sectors.

Economic Structure, Employment and Income

This section gives a brief overview of the province's basic economic indicators and performance as well as employment structure and income situation.

2.6 Economic Structure

Table 2. 6: Nominal GDP (Base year 2015) by Province

Province	2021 ^(a)		2022 ^(b)	
	Value (Rs. mn)	Share (%)	Value (Rs. mn)	Share (%)
Western	7,494,822	42.6	10,473,166	43.4
North Western	1,955,294	11.1	2,706,227	11.2
Central	1,823,459	10.4	2,423,253	10
Southern	1,614,660	9.2	2,199,791	9.1
Sabaragamuwa	1,269,383	7.2	1,725,853	7.1
Eastern	963,957	5.5	1,248,306	5.2
North Central	878,248	5	1,209,771	5
Uva	848,092	4.8	1,176,221	4.9
Northern	752,276	4.3	985,139	4.1
Sri Lanka	17,600,191	100	24,147,726	100

(a) Revised (b) Provisional

Source: Central Bank of Sri Lanka, Department of Census and Statistics

As per the table 2.6, Western province increased its share in nominal GDP to 43.4 per cent, continuously tightening the grip on the country's economy during 2022. The strong presence of the Western province is visible in most of the economic activities, especially in Services and Industry sectors. Thereafter, North Western (11.2 per cent) and Central (10.0 per cent) provinces recorded second and third highest shares in the economy, respectively.

The contributions to nominal GDP from Western, North Western and Uva provinces increased in 2022 compared to 2021, while that of North Central province remained unchanged. Moreover, the Nominal GDP of all the provinces grew substantially during the year, mainly attributable to the significant increase in price levels.

Provincial Contribution to Economic Activities

Considering the provincial contributions, North Western province recorded the highest contribution to Agriculture activities with a share of 18.3 per cent, while Southern and Central provinces contributed by 14.6 per cent and 13.7 per cent, respectively.

Meanwhile, Western province remained the largest contributor to Industry activities, recording a share of 49.2 per cent in 2022. Further, North Western (11.8 per cent) and Central provinces (9.1 per cent) were the next major contributors to the total Industry activities.

In terms of Services activities, Western province continued its dominance with a share of 45.2 per cent, followed by Central (10.0 per cent) and North Western (9.8 per cent) provinces.

Table 2. 7: Sectorial Composition of Provincial GDP – 2021 and 2022

Province	Agriculture (%)		Industry (%)		Services (%)	
	2021 ^(a)	2022 ^(b)	2021 ^(a)	2022 ^(b)	2021 ^(a)	2022 ^(b)
Central	13.6	13.7	9.9	9.1	10.1	10
Eastern	8.9	10.2	5.1	4.2	5.1	4.9
North Central	10.5	8.4	3.6	4.2	4.9	4.9
North Western	17.4	18.3	11.8	11.8	9.7	9.8
Northern	7.2	6.2	4.2	4.3	3.9	3.6
Sabaragamuwa	8.2	8.7	7.1	6.7	7.1	7.1
Southern	15.5	14.6	6.4	6.4	9.6	9.7
Uva	8.5	8.6	4.1	4	4.6	4.7
Western	10.2	11.4	47.8	49.2	44.9	45.2
Sri Lanka	100	100	100	100	100	100

(a) Revised (b) Provisional

Source: Central Bank of Sri Lanka, Department of Census and Statistics

Economic Activities with Provinces

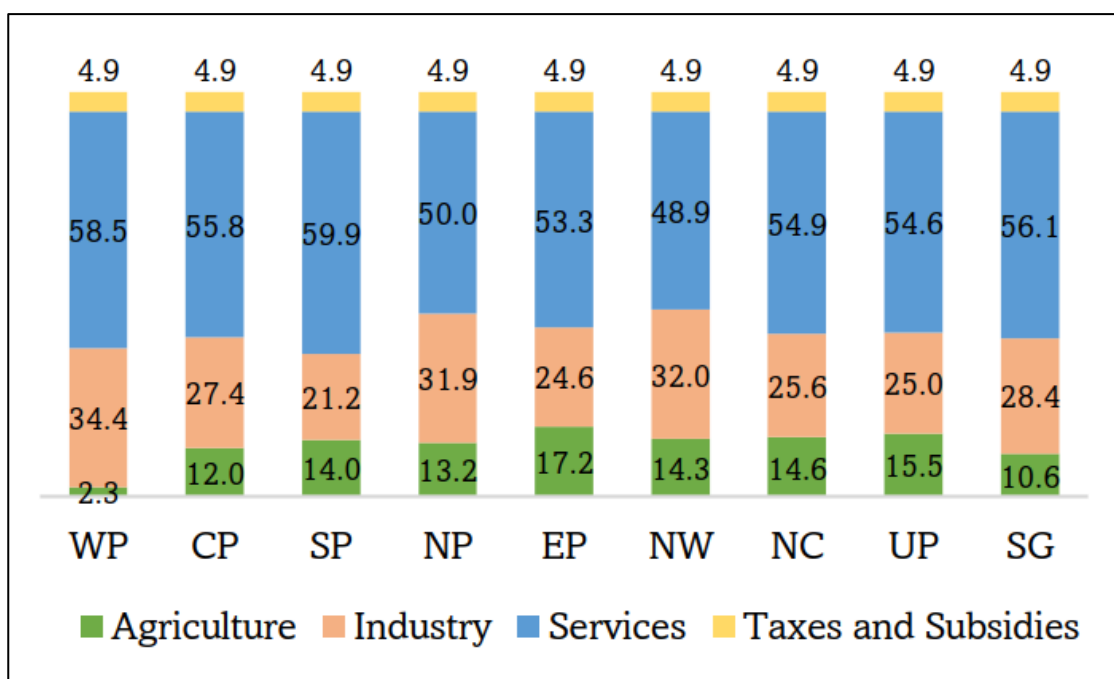


Figure 2.2: Economic Activities within Provinces – 2022

Services activities predominantly contributed to the economies of all the provinces. Accordingly, Southern (59.9 per cent) and Western (58.5 per cent) provinces recorded the highest Services shares. Regarding the

Industry activities, the highest concentration were observed in Western province (34.4 per cent), followed by North Western province (32.0 per cent). Meanwhile, the contribution for Agriculture activities is higher in Eastern (17.2 per cent) and Uva (15.5 per cent) provinces compared to other provinces.

2.7 SWOT Analysis of the Western Province relevant to the TVET Sector

The Western Province is rich in natural resources, including fertile land, abundant water, and attractive coastal areas. The province has seen strong economic growth since the open economy, indicating tremendous progress and development. Rapid economic growth has created jobs and wealth, but it has also led to urban and environmental issues like traffic congestion, pollution, and unmanaged garbage.

The Western Province has tremendous potential for development as well as opportunities to address issues and threats. A brief SWOT analysis is presented here by referring to various secondary sources, including the "Western Region Megapolis Master Plan" in order to improve the region's future growth and development prospects.

<p>Strengths</p> <ul style="list-style-type: none"> • Presence of key sectors such as IT, manufacturing, hotel & tourism, and construction that demand skilled vocational training. • High levels of foreign direct investment (FDI) and international trade create demand for skilled labour, especially in specialized technical fields. • Availability of well-established several public and private TVET institutions • Access to a diverse and skilled pool of instructors and trainers. 	<p>Weakness</p> <ul style="list-style-type: none"> • Overcrowding, traffic congestion in urban areas like Colombo city and transport cost can affect the accessibility and attractiveness of TVET institutions. • Insufficient funding and resources for some TVET institutions can lead to outdated equipment and training materials, impacting the quality of education. • Challenges in maintaining a high standard of practical training due to limited industrial partnerships and real-world training opportunities. • Significant socio-economic disparities in the province can limit access to TVET for underprivileged communities, impacting inclusivity and equal opportunity. • Vocational training especially urbanized areas in the province viewed as less prestigious compared to traditional academic education, which can affect enrollment rates and societal support for TVET.
<p>Opportunities</p> <ul style="list-style-type: none"> • Avenue for establishing renowned international Universities and TVET institutes • Proximity to leading universities and professional in the province that can collaborate with TVET institutions to open pathways for students to progress their career. • Growth in sectors such as information technology, renewable energy, and advanced manufacturing provides opportunities to develop new TVET programmes aligned with these industries. • Incorporating modern technologies like digital learning platforms and virtual simulations to 	<p>Threats</p> <ul style="list-style-type: none"> • Economic fluctuations and uncertainties can impact funding for TVET programs and employment opportunities for graduates. • Dependency on certain industries which, if affected by economic downturns, can lead to reduced demand for specific vocational skills. • Fast-paced technological advancements can render certain skills obsolete quickly, requiring constant updates to TVET curricula which can be resource-intensive. • Challenges in keeping up with most demanded technologies without adequate investment in training facilities and instructor development.

<p>enhance training delivery and reach.</p> <ul style="list-style-type: none"> • Partnerships with international TVET bodies and institutions can bring in new methodologies, certifications, and quality standards, enhancing the overall training ecosystem. • Opportunities for students to engage in exchange programmes and internships abroad, gaining global exposure and skills. 	<ul style="list-style-type: none"> • Long-term environmental changes may necessitate shifts in industry focus, affecting the relevance of existing TVET programs. • The allure of traditional higher education degrees may continue to overshadow vocational training, impacting enrollment and perceived value of TVET programs. • Potential brain drain where skilled TVET graduates may seek opportunities abroad, leading to a local shortage of skilled labour.
--	---

2.8 On-going and future Development in the Province

2.8.1 Western Megapolis Plan – Strategic Importance

Colombo, with its strategic location alongside one of the world's busiest sea routes connecting South-East and East Asia, Oceania, the Middle East, and Europe, has the potential to expand from its current prominence as a regional seaport to a Strategic Maritime Hub serving the southern part of the Indian subcontinent as well as all neighbouring countries bordering the Indian Ocean and beyond.

The Western Megapolis is envisioned and conceptualized as the prudent Grand Strategy for achieving two decisive inter-dependent transformations required in Sri Lanka's forward march to achieve the status of 'A High Income Developed Country', namely the spatial transformation of urban agglomerations in the Western Region of the country and the structural transformation of the National Economy as a whole. Western Megapolis has three broad national goals:

- To address the issues resulting from the congestion pressures being exerted on the urban physical infrastructure, urban services & amenities, and the environment, that have been brought about by 'messy urbanization'.
- To create the enabling environment for propelling the nation to the status of a high income developed country tunneling through the middle income trap, by way of leveraging the economies of agglomeration, through development and transformation of the physical and institutional infrastructure and the national economic structure.
- To optimally harness the benefits of knowledge-based innovation-driven global economic environment characterized by such developments as the 'new industrial revolution' and emergence of 'smart cities'.

2.8.2 Port City Development

Port City Colombo is a brand-new city development designed as an International 'Service Oriented' Special Economic Zone, with an initial investment of US\$1.4 billion and an expected total investment of US\$20 billion when completed. It is a 269-hectare sea reclamation project located next to the existing Colombo Business District (CBD).

The Government of Sri Lanka approved the Colombo Port City Economic Commission Act, No. 11 of 2021, in May 2021, with a modern legal framework and attractive regulations aimed at doing business easier.

The Port City Colombo's 'Area of Authority' (AOA) is defined by the boundaries specified in Schedule 1 of the Colombo Port City Economic Commission Act. Since the commencement of the Port City Act (i.e., May 27, 2021), all land comprising the AOA has been vested in the 'Colombo Port City Economic Commission'

(Commission) by way of a 'Land Grant' issued by the President of Sri Lanka (President) under the State Lands Ordinance (Chapter 454). The AOA has granted the Project Company a (99-year) lease.

Workers will be in high demand as Port City expands and operates. Therefore, worker availability will be a critical factor in investment decisions and, ultimately, Port City's success. According to the GCI survey, Sri Lanka ranks higher than India in terms of the quality of vocational training services and far ahead in terms of graduate skill sets, which include both school leavers and university graduates. In terms of skill levels, Sri Lanka ranks in the top third of all countries in the world, putting it in a good position to provide a skilled workforce for Port City.

The availability of highly skilled labour is an important determinant of the success of Special Economic Zones (SEZ)s. The labour markets in the United Arab Emirates, South Korea, and Malaysia provide businesses with highly skilled employees, with Sri Lanka lagging somewhat behind these countries, but ranking slightly ahead of India. Despite low tertiary school enrollment rates in Sri Lanka, Port City may face a shortage of skilled labour in the future. Sri Lanka faces a shortage of highly skilled employees, particularly in the ICT industry. Furthermore, Port City's development as a multi-services SEZ will be impacted by the country's lower digital skill set compared to its four comparator countries.

2.8.3 Expansion of Katunayake Airport - Opening of the Dedicated Access Road to the Passenger Terminal of Bandaranaike International Airport (BIA)

BIA has been experiencing heavy vehicle traffic during the peak hours causing many difficulties due to a lack of developed external and internal road network system. Therefore, Airport and Aviation Services (Sri Lanka) (Private) Limited (AASL) identified the need for the development of an access road system providing dedicated access to the BIA passenger terminal.

Accordingly, BIA explored the possibilities of having dedicated access to an airport with the neighboring landowner Board of Investment (BOI) and Road Development Authority (RDA). The project commenced with AASL funds of over Rs. 600 million and planned to complete 1.71 km of road length in 3 stages.

1. Stage I - Construction of 660m length, 04 lane dual road from Awariwatta Junction to BOI entrance including junction improvements and installation of traffic signal light system.
2. Stage II - Construction of required Drainage Development Canal works to reclaim the land for the construction of the road.
3. Stage III - Construction of 1050m length, 04 lane dual road from BOI entrance towards Minuwangoda including junction improvements, culverts, and installation of traffic signal light system.

2.8.4 Kadawatha –Meerigama Expressway

The Kadawatha to Meerigama section of the Central Expressway, part of Sri Lanka's extensive Central Expressway project, is designed to connect key regions and boost transportation efficiency. This section spans approximately 36.54 kilometers and features a four-lane roadway. The project is expected to significantly enhance connectivity between Western, Southern, North Western and Central province.

The Kadawatha to Meerigama section is essential for easing traffic and reducing travel time significantly, promoting economic growth and development in the region.

2.9 Importance of Preparing Vocational Education and Training (VET) Plans

Vocational Education and Training (VET) plans serve as strategic roadmaps that guide the development and implementation of TVET efficiently and effectively. These plans are crucial for addressing skills gaps, promoting lifelong learning, and enhancing employability, supporting industry growth, and meeting the evolving needs of the labour market.

Since 1999, the Tertiary and Vocational Education Commission (TVEC) has been engaged in preparation of Vocational Education and Training (VET) Plans for growing industry sectors with the view of rationalizing training as required by the industry. It has widened its operations in this programme by developing VET plans for geographic areas. Accordingly, two types of VET plans are developed as follows;

- Industry Sector based VET Plans
- Provincial VET Plans

2.10 Industry Sector based VET Plans

To reorient and coordinate training efforts by private & public sector training institutions in a way that meet skills requirements of the industry, the TVEC prepares VET Plans for growing industry sectors. These VET plans have been analyzed and prepared carefully in light of socio-economic and skills needs of the respective industry sectors. The TVEC develop and update VET plans based on the growing demand of the industry and so far 21 such industry sector plans have been prepared:

- Automobile Repair and Maintenance
- Ceramics and Glassware
- Construction
- Electrical and Electronic
- Environmental Protection
- Food and Beverages
- Gem and Jewellery
- Hairdressing and Beauty Culture
- Health (Paramedical)
- Hotel and Tourism
- Information and Communication Technology
- Leather and Footwear
- Metal and Light Engineering
- Office Management
- Plantation
- Printing
- Refrigeration and Air- Conditioning
- Rubber and Plastic Manufacturing
- Telecommunication
- Textile and Garment
- Transport and Logistics

2.11 Provincial VET Plans

With the view of rationalizing Technical and Vocational and Training (TVET) provisions by provincial basis, VET plans are developed for provincial council areas since the year 2008. So far, the TVEC has developed eight (08) Provincial VET Plans.

Literature Review

2.11 Vocational Education Training (VET) Plans

A VET plan refers to a comprehensive and strategic framework developed by governments, social partners (employers' and workers' organizations), educational institutions, and other stakeholders to enhance vocational education and training systems. The plan aims to address the needs of the labour market, promote inclusive and equitable access to quality education and training opportunities, and support individuals in acquiring relevant skills and competencies for decent work and lifelong learning. In summary, Vocational Education Training (VET) Plans are customized roadmaps that guide individuals through their vocational education and training journey, helping them acquire the skills and qualifications necessary for success in their chosen career paths.

2.12 Summary of Eight Provincial VET plans

Considering the eight previous provincial vocational education and training (VET) plans developed by the Technical and Vocational Education Commission (TVEC), the following summaries highlight the crucial steps needed in each region to upgrade and strengthen the technical and vocational education and training (TVET) sector. These steps aim to ensure that vocational education aligns more closely with industry needs and effectively supports regional economic development.

The Northern Province VET plan highlights the need for vocational education to the economic drivers, particularly focusing on the informal sector and unskilled labour. Recommendations focus on importance of establishing new training centers and revising curricula to better align with industry needs. Modernizing vocational education and integrating e-skilling are crucial for meeting the growing demands of the labour market (Northern Provincial VET Plan, 2014).

The Sabaragamuwa VET plan highlights the need for addressing the challenges of the region, such as limited access to training and a high level of youth unemployment. The plan recommends expanding vocational training centers, particularly in rural areas, and introducing courses that align with the regional economic activities, such as agriculture and tourism. The importance of integrating modern technology and fostering partnerships between industry and training institutions is emphasized to enhance the quality and relevance of vocational training (Sabaragamuwa Provincial VET Plan, 2009).

The Southern Province VET plan identifies the region's strong potential in sectors like tourism, fisheries, and light engineering. It also highlights the need for significant improvements in the relevance and quality of vocational training. Recommendations include the introduction of new training programs that cater to most demanded industry needs, the modernization of training infrastructure, and the enhancement of career guidance services (Southern Provincial VET Plan, 2011).

The Uva Province VET plan identifies a need for aligning training programs with both local and international labour market demands, particularly in foreign languages and ICT. It recommends revising curricula, introducing advanced NVQ courses, and improving facilities to enhance vocational training. The analysis highlights the gap between current training provisions and industry needs, emphasizing the importance of curriculum revision to better prepare the workforce for both local and global markets (Uva Provincial VET Plan, 2014).

The Central Province VET plan identifies a mismatch between vocational education supply and industry demand, particularly due to insufficient training infrastructure. The key sectors identified for development include Construction, ICT, and Tourism. The plan reveals a skills mismatch and outdated training facilities as major challenges. Recommendations emphasize the modernization of training infrastructure, the introduction of new, industry-relevant courses, and the enhancement of career guidance services to better match youth skills with market demands. Coordination among stakeholders is crucial to effectively implement these strategies (Central Provincial VET Plan, 2015).

The Eastern Province VET plan focuses on strengthening the region's economy, particularly in the post-conflict context. Key sectors include agriculture, fisheries, and tourism. Recommendations include the establishment of new vocational training centers, the introduction of livelihood skills into existing programs, and the expansion of training offerings tailored to most demanded economic opportunities (Eastern Provincial VET Plan, 2010).

The North Central Province VET plan points out a significant skills gap between the existing training programs and the needs of the labour market, which is dominated by informal sectors. The plan suggests introducing new training programs focused on most demanded industries and technology, improving the quality and relevance of existing courses, and strengthening the institutional framework to support TVET initiatives (North Central Provincial VET Plan, 2016).

The North Western Province VET Plan highlights the informal nature of many enterprises and the lack of formal training among workers, with a notable gender disparity in vocational training participation. It recommends introducing formal training programs to support informal enterprises, developing sector-specific HR policies, and promoting gender equality in vocational education. The analysis suggests that formalizing vocational training is essential for transitioning workers from informal to formal employment and aligning training programs with industry needs (North Western Provincial VET Plan, 2012).

2.13 Importance of Vocational Education and Training (VET) Plans

Vocational Education and Training (VET) plans serve as strategic roadmaps that guide the development and implementation of vocational education and training systems. These plans are crucial for addressing

skills gaps, promoting lifelong learning, enhancing employability, supporting industry growth, and meeting the evolving needs of the labour market.

2.14 Addressing Skills Mismatches

VET plans are essential for identifying and addressing skills mismatches between the supply of labour and the demands of the economy. By conducting comprehensive skills assessments and labour market analyses, VET plans help to determine the skills and competencies needed in various industries and occupations. Based on these assessments, training programs can be developed to equip individuals with the relevant skills, reducing unemployment and underemployment while ensuring that businesses have access to a skilled workforce.

2.15 Promoting Lifelong Learning

VET plans play a crucial role in promoting lifelong learning by providing individuals with opportunities to acquire new skills and knowledge throughout their careers. Lifelong learning is essential in today's rapidly changing world, where technological advancements and economic shifts continually reshape job requirements. VET plans encourage individuals to engage in continuous education and training, empowering them to adapt to changing circumstances, pursue career advancement opportunities, and remain competitive in the labour market.

2.16 Supporting Industry Growth and Innovation

VET plans are instrumental in supporting industry growth and innovation by providing a skilled and adaptable workforce. By collaborating closely with employers and industry stakeholders, VET plans identify most demanded skill requirements and facilitate the integration of new technologies and practices into training curricula. This enables industries to remain competitive, drive innovation, and capitalize on new market opportunities, ultimately contributing to economic growth and prosperity.

2.17 Meeting Global Challenges

In conclusion, VET plans are indispensable for promoting skills development, facilitating workforce participation, driving economic growth, and addressing global challenges. By aligning education with industry needs, promoting lifelong learning, enhancing employability, supporting industry growth, strengthening education-industry partnerships, and promoting social inclusion, VET plans play a vital role in shaping a brighter future for individuals, industries, and economies.

2.18 Best VET systems in the world

Identifying the "best" Vocational Education and Training (VET) systems in the world can be subjective and dependent on various factors such as effectiveness, inclusivity, responsiveness to labour market needs, and overall outcomes. However, several countries are often recognized for their exemplary VET systems.

2.18.1 Germany

- Germany is widely regarded as having one of the most successful and well-established VET systems globally.
- The dual system combines classroom-based instruction with on-the-job training, providing students with practical skills and theoretical knowledge (BMBF, 2021).
- Strong industry partnerships ensure that training programs align with labour market demands and promote smooth transitions to employment (BIBB, 2021).

The German Vocational Education and Training (VET) system is internationally renowned for its effectiveness in preparing individuals for the workforce and promoting economic prosperity.

2.18.2 Switzerland

- Switzerland's VET system is highly decentralized and characterized by close collaboration between government, industry, and educational institutions.
- Apprenticeship programs are a cornerstone of the Swiss VET system, offering hands-on training and work experience in various sectors (SECO, 2021).
- High-quality vocational qualifications contribute to Switzerland's low youth unemployment rates and strong economic performance (SERI, 2021).

2.18.3 Denmark

- Denmark's VET system emphasizes flexibility, allowing students to choose from a wide range of vocational pathways and specializations.
- Strong government support and funding ensure the quality and accessibility of VET programs, with a focus on lifelong learning and skills development (Eurydice, 2020).
- Dual learning approaches combine school-based education with practical training in companies, enabling students to gain valuable work experience (Under visning sministeriet, 2021).

2.18.4 Singapore

- Singapore's VET system is renowned for its responsiveness to industry needs and focus on innovation and technology.
- Skills Future, Singapore's national movement for lifelong learning, promotes continuous skills upgrading and provides support for individuals to pursue VET and training opportunities (SkillsFuture Singapore, 2021).

- Strong government-industry partnerships and investment in infrastructure and technology contribute to Singapore's highly skilled workforce and economic competitiveness (WSG, 2021).

Singapore's Vocational Education and Training (VET) system is characterized by its responsiveness to industry needs, focus on skills development, and commitment to lifelong learning. With a strong emphasis on innovation and technology, Singapore's VET plan aims to equip individuals with the necessary skills and competencies to thrive in a rapidly evolving global economy.

Industry Partnerships and Collaboration

Singapore's VET system emphasizes close collaboration between educational institutions, industry partners, and government agencies. Industry partnerships are integral to the design and delivery of training programs, ensuring that VET offerings remain relevant and aligned with industry needs (WSG, 2021). By engaging employers in curriculum development, work placements, and apprenticeship schemes, Singapore ensures that VET graduates possess the skills and competencies demanded by the labour market.

2.18.5 Australia

- Australia's VET system offers a wide range of vocational qualifications and pathways, catering to diverse learner needs and industry requirements.

- The Australian Qualifications Framework (AQF) provides a unified system for recognizing and accrediting vocational qualifications, enhancing mobility and transferability (Australian Government, 2021).

- Industry-led training packages ensure that VET programs remain relevant and responsive to changing skill demands, contributing to high employment outcomes (National Skills Commission, 2021).

These examples highlight some of the best practices and successful elements of VET systems worldwide. Each country's approach may vary based on its unique context, but they all share a commitment to providing high-quality vocational education and training that meets the needs of individuals, industries, and economies.

2.19 Divergent Labour Market Trends: Contemporary and prospected

The contemporary global labour market presents a picture of unevenness, driven by a confluence of economic, health, and geopolitical factors over the past three years. High-income countries are experiencing a phenomenon of tight labour markets, characterized by a scarcity of qualified workers to fill open positions. In contrast, low- and lower-middle-income countries continue to grapple with higher unemployment rates than those observed pre-pandemic. The asymmetry of the recovery is exacerbated

by countries' varying capacities to maintain policy measures to protect the most vulnerable and maintain employment levels. While advanced economies were able to adopt wide ranging measures, emerging economies have provided less support to the most vulnerable firms and workers due to their limited fiscal space. This uneven recovery underscores the critical need for targeted policy interventions to bridge these disparities and foster a more inclusive global labour landscape (World Bank, 2023).

In the next five years, technology adoption remains the paramount driver of business transformation. It was revealed that over 85% of organizations view increased adoption of cutting-edge technologies and expanded digital access as the most transformative trends for their businesses. Furthermore, the broader application of Environmental, Social, and Governance (ESG) standards is anticipated to have a significant impact (IEA (2020; World Economic Forum, 2023). Macroeconomic factors also play a crucial role, with rising living costs and sluggish economic growth emerging as the next most impactful trends. Investments in the green transition, ranked as the sixth most impactful macro trend, highlight the growing focus on sustainability. Supply chain shortages and evolving consumer expectations regarding social and environmental responsibility follow closely.

Consequently, when businesses are investing in becoming more environmentally friendly, creating new jobs in areas like renewable energy and sustainable practices while some existing jobs might be impacted as industries adapt. Further, the companies focusing on Environmental, Social, and Governance standards will see job growth, particularly as supply chains become more localized. There might be some job shifts within companies during this transition. Furthermore,

- **Adapting to Climate Change Creates Jobs.** As countries work to address climate change, new opportunities will arise.
- **Developing Economies: A Young Workforce Advantage.** Growing populations in developing countries will create a large pool of potential workers.
- **Technology: A Double-Edged Sword.** While new technologies like Artificial Intelligence will create jobs, some existing jobs might be automated.
- **The Economy's Impact on Jobs.** Slower economic growth, rising material costs, and a higher cost of living can all lead to job losses.
- **Geopolitical Tensions and Pandemics: Uncertainties Remain.** The on-going impact of the pandemic and political instability can disrupt labour markets, but the specific effects are unclear.

Demand for green jobs is surging across industries and sectors. The IEA (2020) estimates a "green recovery" could boost global GDP by 3.5% and create 9 million new jobs annually. Globally, 30 million green jobs could emerge by 2030 in clean energy and efficiency. China's green transition alone could add \$1.9 trillion to its economy and create 88 million jobs by 2030. Green jobs offer a powerful solution, promoting environmental health while driving economic growth and job creation.

Aligning of technology adoption with business laid a strong emphasis on foundational digital technologies as drivers of business transformation. Over 75% of firms intend to adopt big data, cloud computing, and artificial intelligence (AI) within the next five years. This trend underscores the growing importance of data-driven insights, scalable infrastructure, and automation capabilities for enhancing operational efficiency and competitive advantage shedding light on the expected labour demand. The survey further highlights the transformative potential of digital commerce and trade. A remarkable 86% of participating companies plan to incorporate digital platforms and apps into their core operations for next five years. This is closely followed by the anticipated adoption of e-commerce and digital trade solutions by 75% of businesses. This surge signifies a significant paradigm shift towards leveraging online channels for customer engagement and revenue generation.

A positive shift is expected in the job market over the next five years, with most technologies creating more jobs than they eliminate. Big data analysis, environmental solutions, and cyber security are poised to be the biggest drivers of new job opportunities. While advancements in agriculture, digital commerce, and AI might cause some job displacement, the overall impact is predicted to be positive – with new positions arising to compensate. Even robots, the exception, are expected to have a minimal negative effect. This suggests that technology will be a force for job creation and workforce transformation, rather than widespread job losses.

A recent Future of Jobs Survey in 2023, paints a picture of a dynamic labour market in the coming years. Employers anticipate a structural churn of 23% within the job market, signifying a significant level of disruption. This churn represents a combined effect of job creation in most demanding sectors and job displacement in declining industries. The survey results reveal variations across industries. Sectors like Supply Chain & Transportation and Media & Entertainment are expected to experience a higher-than-average level of churn, indicating significant potential for job transformation. Conversely, industries such as Manufacturing and Retail & Wholesale of Consumer Goods are likely to see a lower-than-average churn, suggesting a more stable job landscape (World Economic Forum, 2023).

Despite the anticipated job displacement, the survey findings offer an optimistic outlook. While 83 million jobs are projected to decline, a net increase of 69 million new positions is expected. This translates to a net decrease of only 2% (14 million jobs) compared to current employment levels. These figures suggest that technological advancements and economic shifts will lead to a reconfiguration of the labour market, with a net positive impact on job creation in the long run.

The combination of macro trends and technology adoption discussed above have identified specific areas of job growth and decline as shown in Figure 1 and 2.



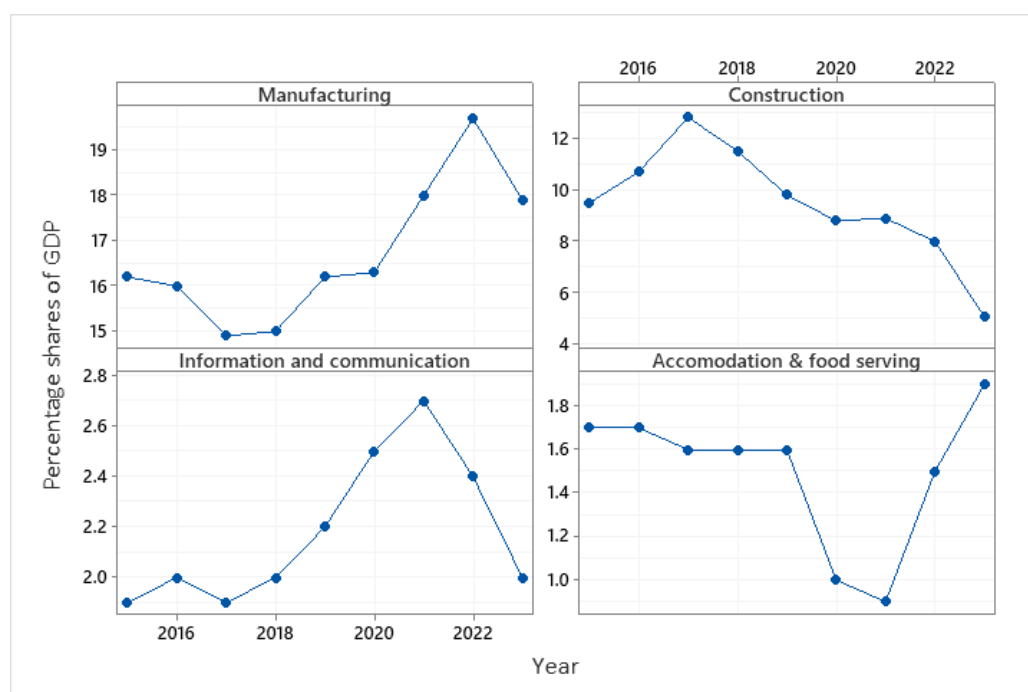
Figure 1: Fastest growing versus fastest declining Jobs

Chapter 3: Data Analysis (Employment /Industry Demand Survey)

3.0 Economic Growth and Labour Market Trends in Selected Industry Sectors

In terms of economic growth, Sri Lanka's economy contracted year on year as a result of the Easter Sunday attacks, the adverse impacts of the COVID-19 pandemic, and the economic crisis. The pandemic had a significant impact on physical-based economic activities such as construction, manufacturing, and transportation, as well as the entire tourism ecosystem. The Information and Communication sector, on the other hand, benefited significantly from the pandemic-induced surge in demand for voice and data services, as people resorted to work-from-home arrangements, online education, and entertainment.

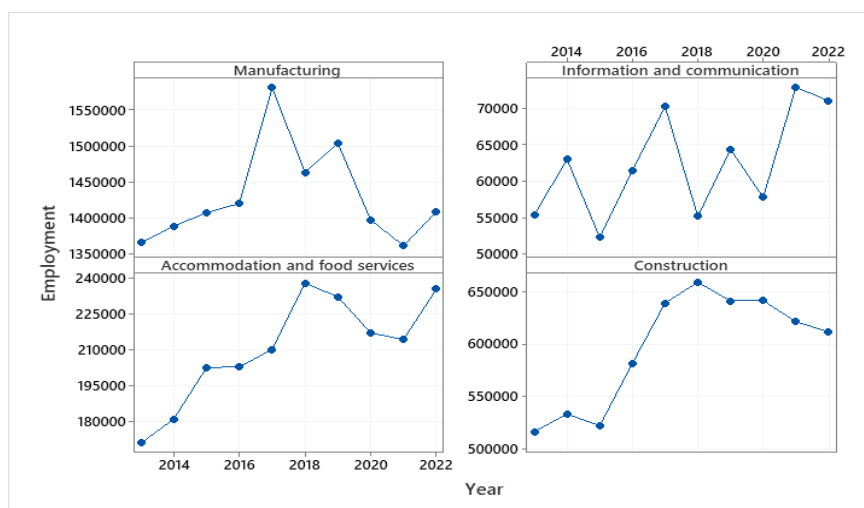
Figure 3. 1 : Percentage Share of GDP by Industry Sectors, 2015 – 2023



Source: GDP estimates, Department of Census & Statistics

As shown in the graph above, the Easter Sunday attacks and subsequent COVID-19 pandemic had a significant impact on the Accommodation and Food Service industries, whereas the Information and Communication sector experienced significant growth due to increased demand for technology-based solutions such as digital media, networking, cyber security, cloud computing services, artificial intelligence, and automation. The construction sector experienced a severe setback on both the supply and demand sides as a result of the COVID-19 pandemic and related mobility restrictions, which primarily contributed to its contraction. Shortages of raw materials and fuel, along with soaring input costs, lack of supplier credit and overdue payments on completed government-funded projects, led the supply side issues in the construction activities. Moreover, building material imports also contracted, partly due to the policy measures adopted to encourage import substitution industries. Furthermore, imports of building materials fell, mainly in part to policy measures aimed at encouraging import substitution industries.

Figure 3. 2: Employment Trends in Selected Industry Sectors, 2013 – 2022



Source: Quarterly Labour Force Survey, Department of Census & Statistics

Except for ICT sector, employment in the four industries listed above decreased between 2019 and 2021. Furthermore, employment in the Accommodation & Food Services and Manufacturing sectors rose in 2022 compared to the previous three years, while employment in the ICT and Construction sectors fell.

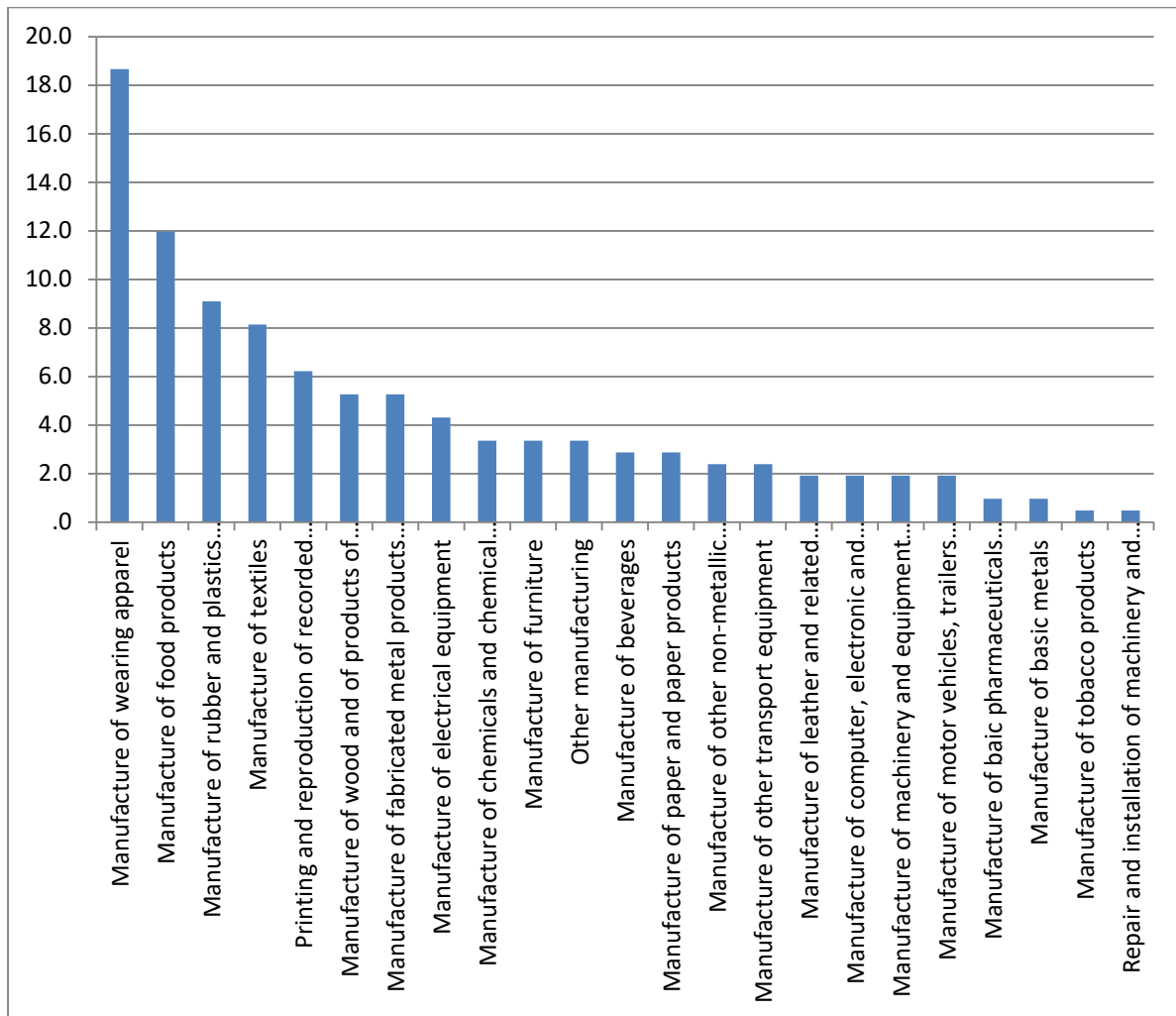
Overall, employment trends in these sectors shed light on the changing nature of the labour market and the impact of a variety of economic and social factors, including the Easter Sunday attack, the COVID-19 pandemic, and the economic crisis.

3. 1 Descriptive Analysis of Employment Demand Survey by Sectors

3.1.1 Manufacturing Sector

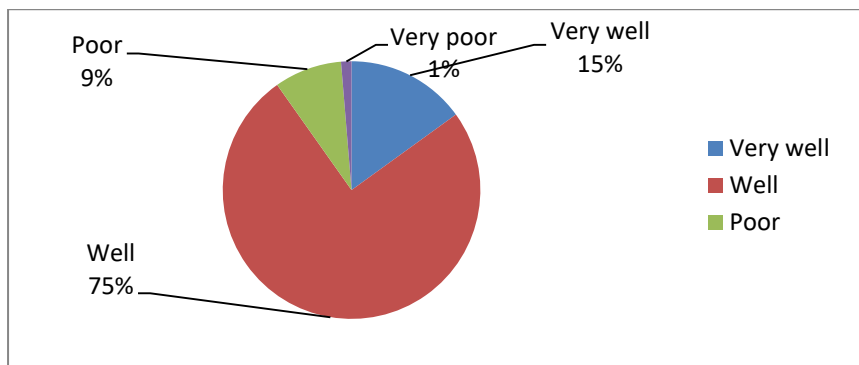
The manufacturing sector in Sri Lanka is a vital part of the country's economy, contributing significantly to GDP and employment. Apparel industry is the largest segment in Sri Lanka's manufacturing industry, contributing around 40% to the total export earnings. The sector continues to grow with increased orders and production, especially catering to seasonal demands. Food and Beverages is a significant contributor, this sector has shown substantial growth, driven by local and international demand. New investments and innovations in production processes have bolstered this sector's output.

Figure 3. 3: Percentage Distribution of Industries by Main Business Activity



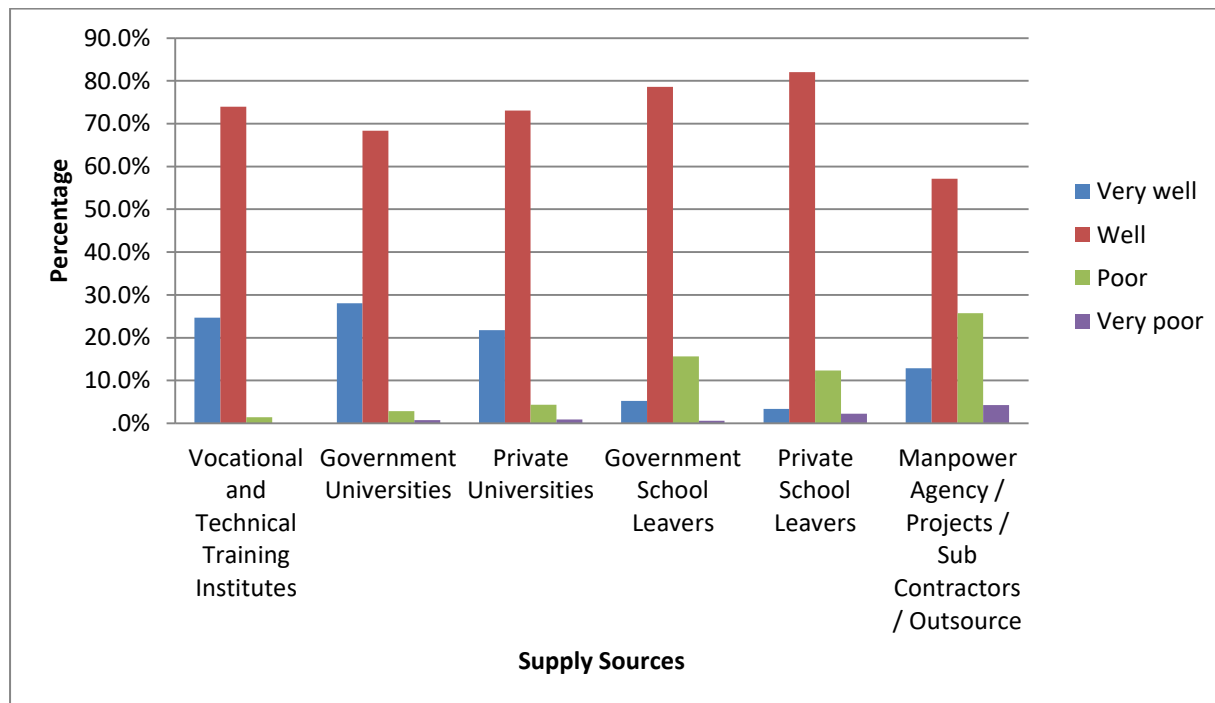
According to the data provided, the sample survey of the Manufacturing sector revealed that approximately 50% of the industries' primary business activities were the production of apparel-related products, food products, and rubber and plastic products. This suggests that these three sub-sectors of the Manufacturing industry accounted for a sizable portion of the total business activities in the sample surveyed.

Figure 3. 4: Percentage Distribution of Performance among Employees Who Came from Technical and Vocational Centers



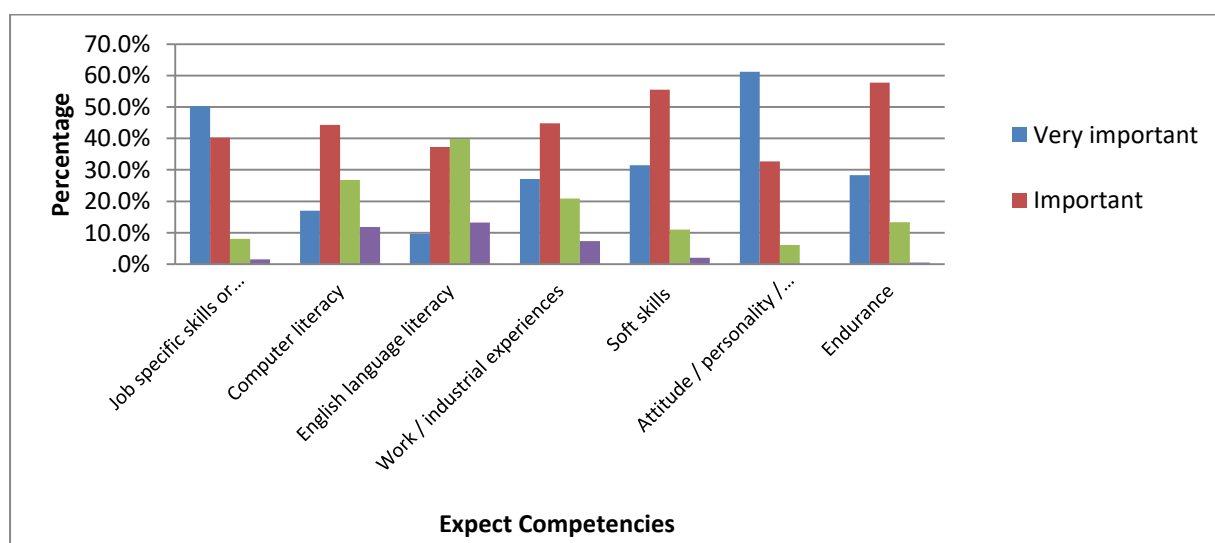
According to the graph above, 75% of industry managers said that employees from TVET institutes performed well. This suggests that the majority of industry managers were satisfied with the skills and competencies acquired through training at TVET institutes.

Figure 3. 5: Percentage Distribution of Performance of Employees by Supply Sources



Across all supply sources, the majority of employers expressed satisfaction with the performance of employees who graduated from TVET institutes. This suggests that these employers believe the skills and competencies of people with such educational backgrounds meet their expectations.

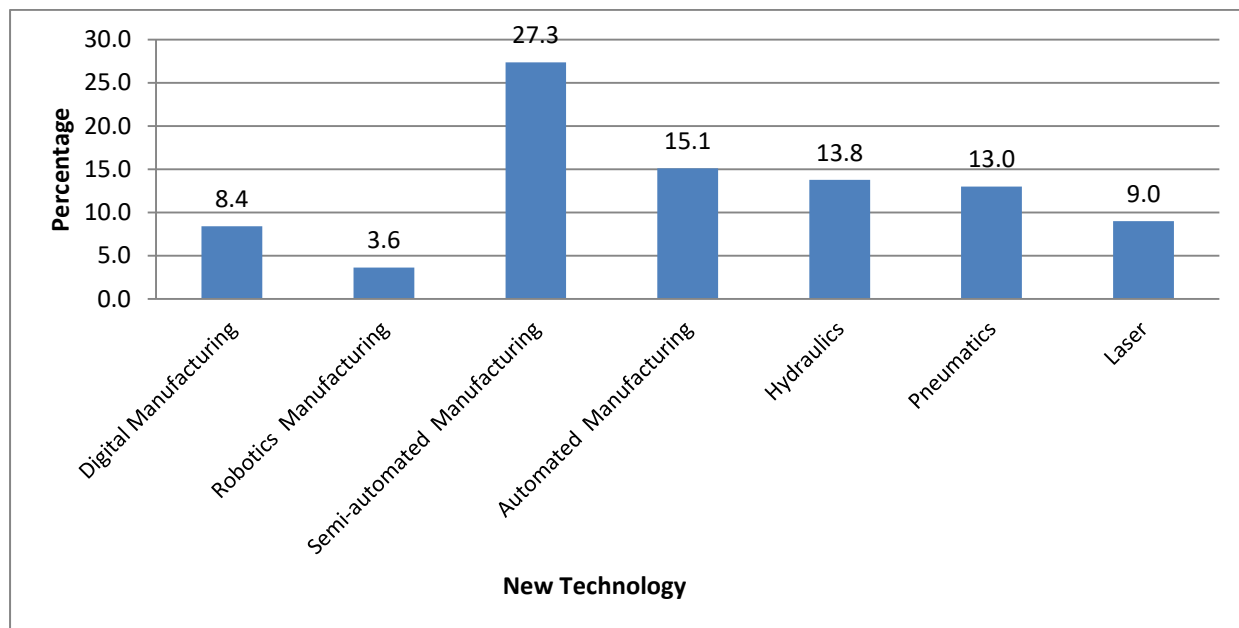
Figure 3. 6: Percentage distribution of expect competencies from job seekers coming from technical and vocational centers



When recruiting employees from TVET institutes in for the manufacturing industry, more than half of employers consider job-specific skills, as well as attitude, personality, and commitment, to be essential

competencies. The majority of employers emphasized the significance of soft skills, stating that these skills should be effectively developed at TVET institutes to align with the demands of the industry environment.

Figure 3. 7: Percentage Distribution of New Technology Trends Available in the Manufacturing Industries



The majority of manufacturing industries have adopted semi-automated and automated technology trends. As a result, it is critical for TVET institutes to provide and improve their VET programmes to ensure they are up to date with the latest technology trends that align with the technologies currently used in the industries.

Table 3. 1: High Demanded Occupations in the Manufacturing Industries

- Juki Machine Operator
- Sewing Machine Operator
- Welder
- Electrician
- Fitter
- Quality Checker
- Lathe Machine Operator
- Mechanic (General)
- Printing Machine Operator
- Electrical Engineering Technician
- Graphic Designer
- Electronic Technician
- Garment Pattern Maker
- Plastic Products Machine Operator
- Embroidery Machine Operator
- Boiler Operator
- Mechanical Engineer
- Technician (Workshop)
- Garment Technician
- Fibre Glass Technician
- Rubber Products Machine Operator
- Technician (General)
- Printer (General)
- Colour Blender (Textile)
- Textile Designer
- Cad Pattern Marker
- Foreman, Mechanical
- Automotive Technician
- Technician - Heating / Ventilation / Refrigeration
- Industrial Technician
- Photographer (General)
- Computer Operator
- Baker
- Pastry Maker
- Pattern Maker

Based on the survey results, the occupations listed above were identified as the most in-demand in the manufacturing sector. As a result, it is necessary to coordinate supply-side TVET programmes with industry demand. Furthermore, awareness programmes aimed at students interested in pursuing TVET should be expanded to highlight these in-demand occupations and inform students about the abundance of job opportunities available in the industry.

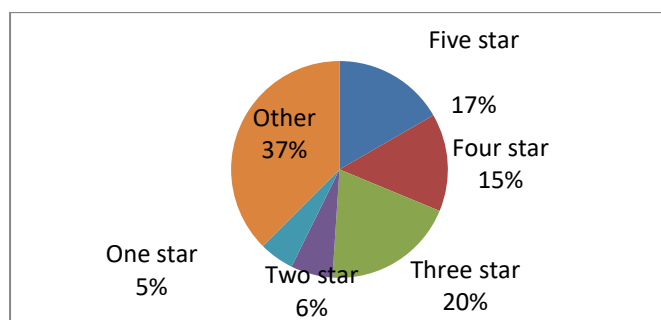
The manufacturing sector is experiencing significant transformations driven by technology and innovation. The integration of Artificial Intelligence (AI) and machine learning in manufacturing processes is growing. Therefore, TVET institutes and the TVEC must focus on integrating AI and robotics into the curriculum in order to meet the industry's future demand.

3.1.2 Hotel Sector

Sri Lanka's hotel sector is experiencing rapid growth and transformation, fueled by resurgence in tourism and increased investment. In 2022, international tourist arrivals increased significantly compared to the previous year. Key markets include India, Russia, the United Kingdom, Germany, and France.

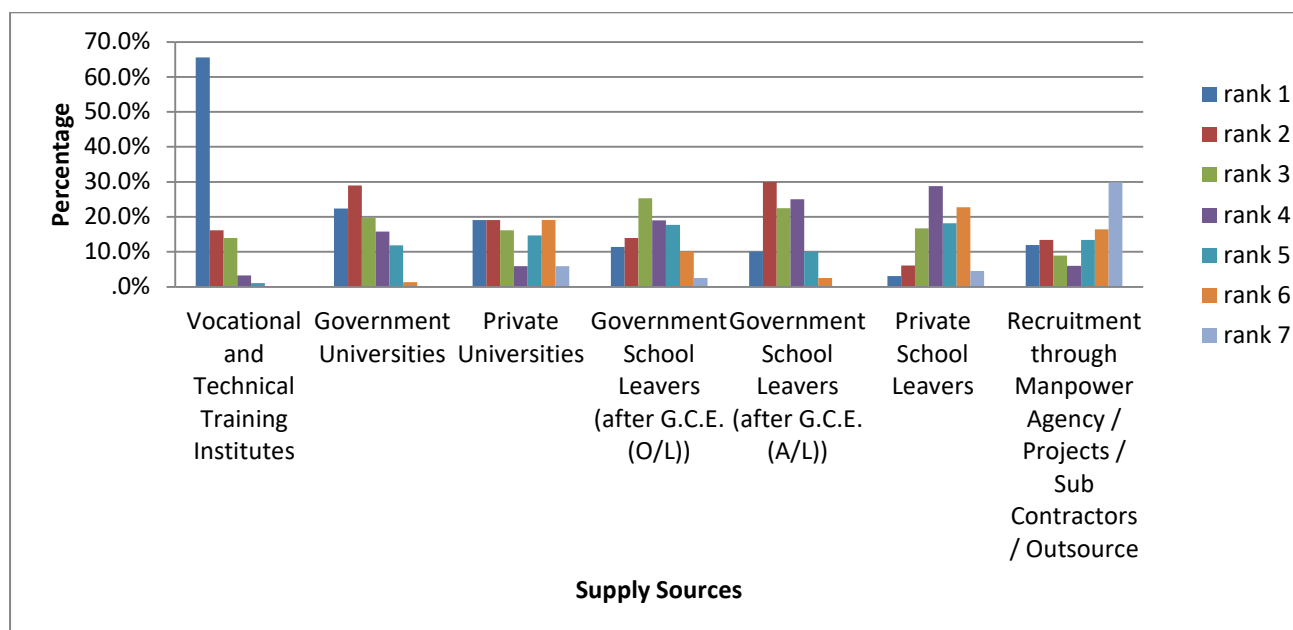
Sri Lanka's strategic initiatives, such as collaborations with travel associations and participation in international tourism events, are enhancing the sector's prospects. The Port City Colombo project is expected to play an important role in attracting investment and elevating the hospitality industry.

Figure 3. 8: Percentage Distribution of Hotels by Star Category



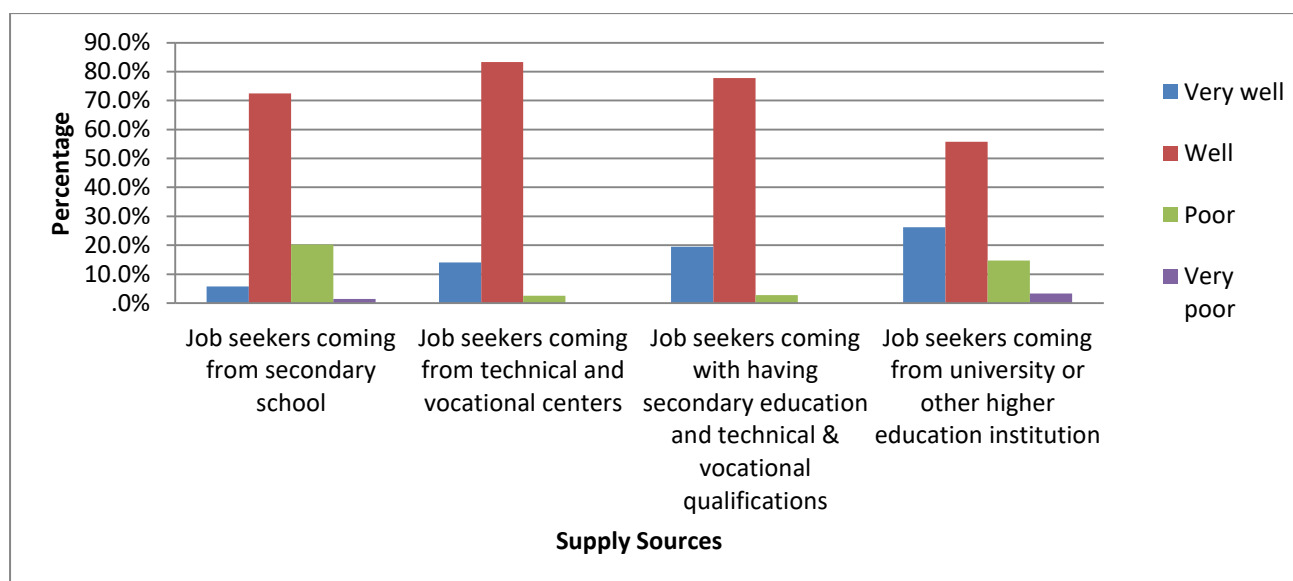
The Western Province of Sri Lanka offers a wide range of hotels categorized by star ratings. According to the sample survey, more than half of the hotels were rated as five, four, or three stars. The province provides a wide range of options to suit different budgets and preferences, ensuring that visitors have a comfortable and enjoyable stay.

Figure 3. 9: Percentage Distribution of Interest in recruiting Employees by supply sources with ranking



According to the graph above, the majority of employers are most interested in recruiting from TVET Institutes. This suggests that most hotel employers prefer to recruit employees from TVET institutes over other supply sources.

Figure 3. 10: Percentage Distribution of Performance of Employees by Supply Sources



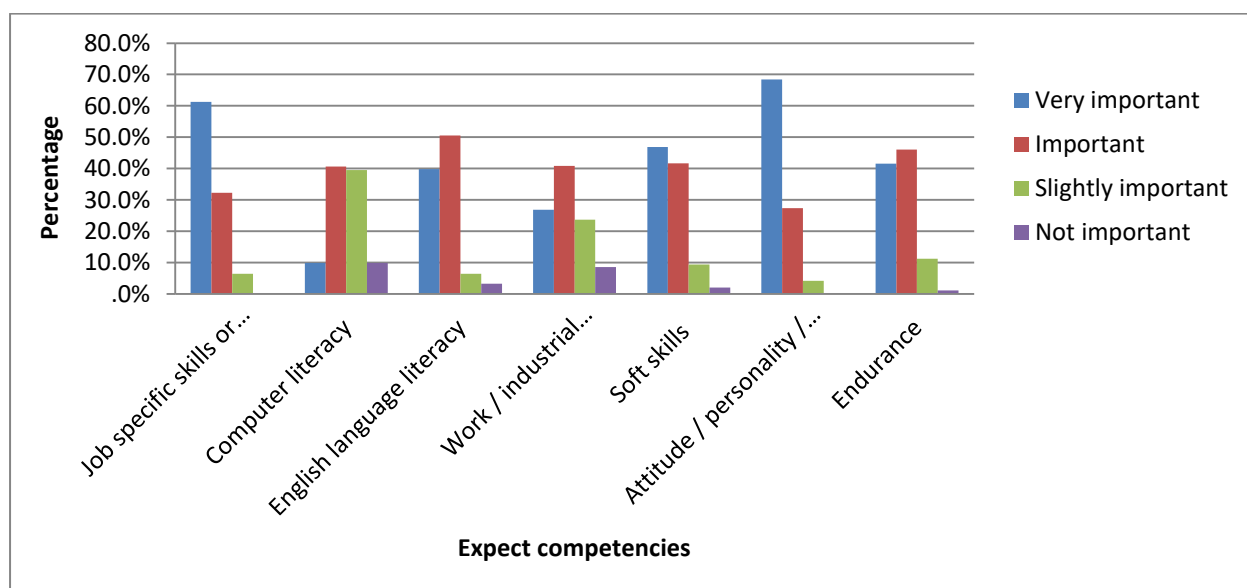
According to the graph above, the majority of hotel sector employers reported that employees from TVET institutes performed well, with only a few citing poor performance in comparison to other supply sources.

Based on this sample survey, the performance of TVET institute employees in Sri Lanka's hotel sector has been highly favorable. Employers reported that these employees are well-prepared for their roles, demonstrating the efficiency of TVET programmes. These programmes are intended to provide practical skills and hands-on experience, which are essential in the hospitality industry.

The Sri Lanka Institute of Tourism & Hotel Management (SLITHM), a renowned training institute, provides specialized training in areas such as hotel management, travel, and tourism. Their curriculum includes practical training in fully equipped facilities such as training kitchens and restaurants, allowing students to gain real-world experience before entering the workforce.

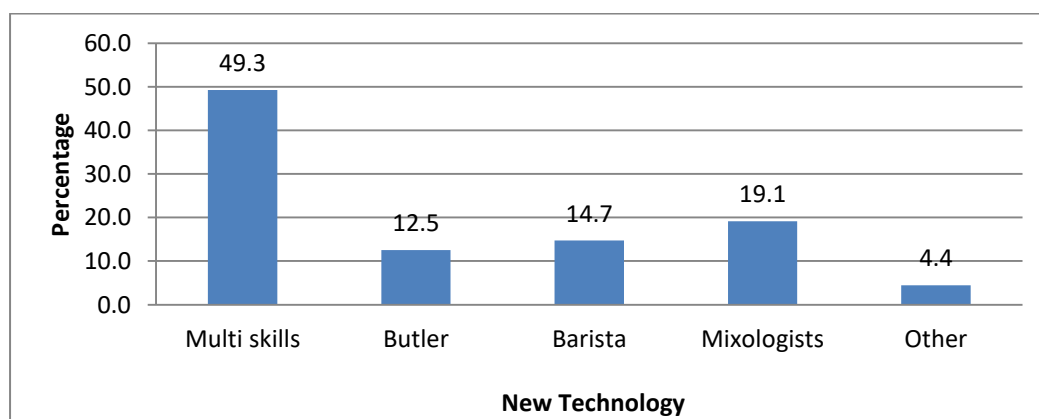
Furthermore, the Tertiary and Vocational Education Commission (TVEC) is responsible for ensuring the quality of TVET programmes. The TVEC ensures that training is aligned with industry standards and requirements, resulting in competent graduates prepared to meet the demands of the hotel industry.

Figure 3. 11: Percentage distribution of expect competencies from job seekers coming from technical and vocational centers



When recruiting from TVET institutes for the hotel industry, more than 60% of employers consider job-specific skills, as well as attitude, personality, and commitment, to be essential competencies. A large number of employers emphasized the importance of English language proficiency and soft skills, stating that these abilities should be effectively developed at technical and vocational educational institutions. This development is required for employees to effectively interact with both domestic and foreign customers, in line with the environment of star-category hotels.

Figure 3. 12: Percentage Distribution of Skills Requirements and New Technology Trends Available in the Hotel Industries



The majority of hotel sector requires multi-tasked skills persons. As a result, it is critical for TVET institutes to provide and improve their programmes to ensure that they are current with the latest technology trends that are being used in the hotel sector. Multi-tasked skills enhance workforce flexibility and adaptability, while technology trends in mixology are revolutionizing customer experience and operational efficiency. These trends are essential for staying competitive and meeting evolving market demands in the Hotel sector.

Table 3. 2: High Demanded Occupations in the Hotel Industries

- Chef
- House Keeping Attendant
- Room Boy
- Cook
- Waiter
- Steward (Hotels and Restaurants)
- Receptionist (Hotels)
- Barman
- Foods & Beverage Assistant
- Chef de Partie
- Kitchen Steward
- Food and Beverage Manager
- House Keeper
- Room Maid

Based on the survey results, the occupations listed above were identified as the most in-demand in the hotel sector. As a result, it is necessary to coordinate supply-side TVET programmes with industry demand. Furthermore, awareness programmes aimed at students interested in pursuing TVET should be expanded to highlight these in-demand occupations and inform students about the abundance of job opportunities available in the industry.

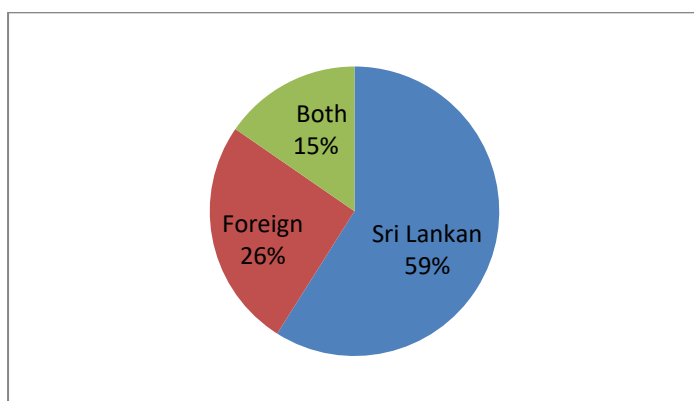
The hotel sector is embracing a combination of advanced technology and diverse skill sets to improve guest experiences and operational efficiency. Hotels can remain competitive and meet their guests' changing expectations by focusing on customer service, digital literacy, and sustainable practices, as well as implementing smart technologies. To meet industry demands, TVET institutes must also focus on incorporating the most recent trends and technology into their curricula.

3.1.3 ICT Sector

The ICT sector in Sri Lanka contributes significantly to the national GDP. It is one of the fastest-growing sectors, with a notable impact on employment and foreign exchange earnings. As per the Asian Development Bank (ADB) report the sector employs over 120,000 professionals and contributes approximately \$1.2 billion in export revenue.

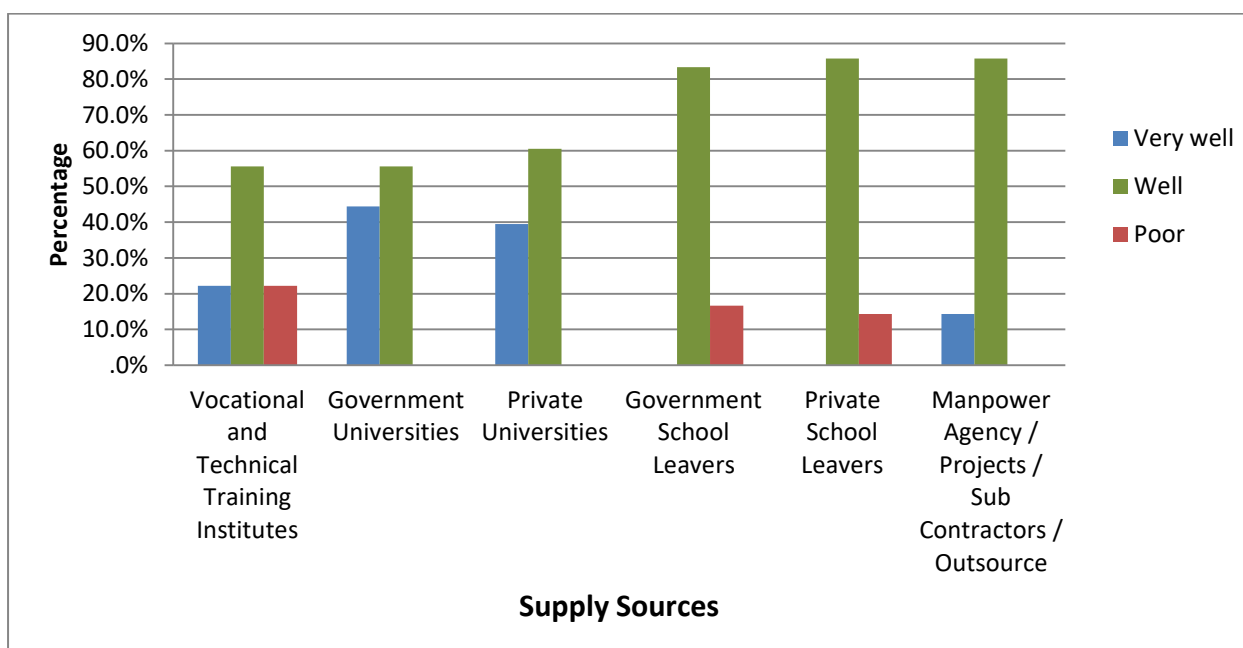
Major ICT companies in Sri Lanka are involved in software development, IT services, and consulting. The sector is also home to numerous startups and small to medium enterprises (SMEs) focusing on innovative tech solutions and services.

Figure 3. 13: Percentage Distribution of Establishment Ownership



The ownership structure of ICT companies in Sri Lanka is diverse, with a mix of local entrepreneurs, multinational corporations, and joint ventures. According to the graph, approximately 85% of the establishments were owned either locally or by foreign entities. Thus, Sri Lanka's ICT sector is characterized by a wide range of ownership structures, including local entrepreneurs, multinational corporations, and joint ventures. This diversity helps to create a dynamic and rapidly evolving industry, establishing Sri Lanka as a key player in the global ICT landscape.

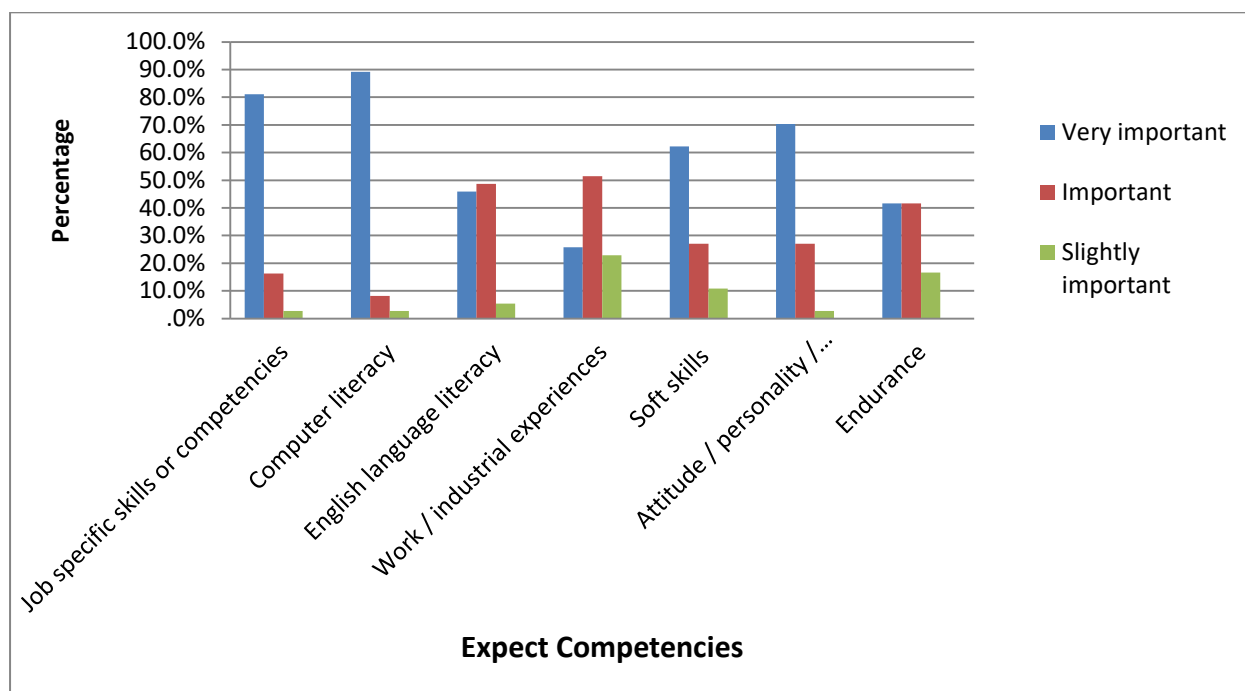
Figure 3. 14: Percentage Distribution of Performance of Employees by Supply Sources



According to the survey results shown in the graph above, all employers were satisfied with the performance of employees recruited from Government and private universities. However, a significant percentage of employers were dissatisfied with the performance of employees from vocational and technical training institutes, as well as Government and private school leavers.

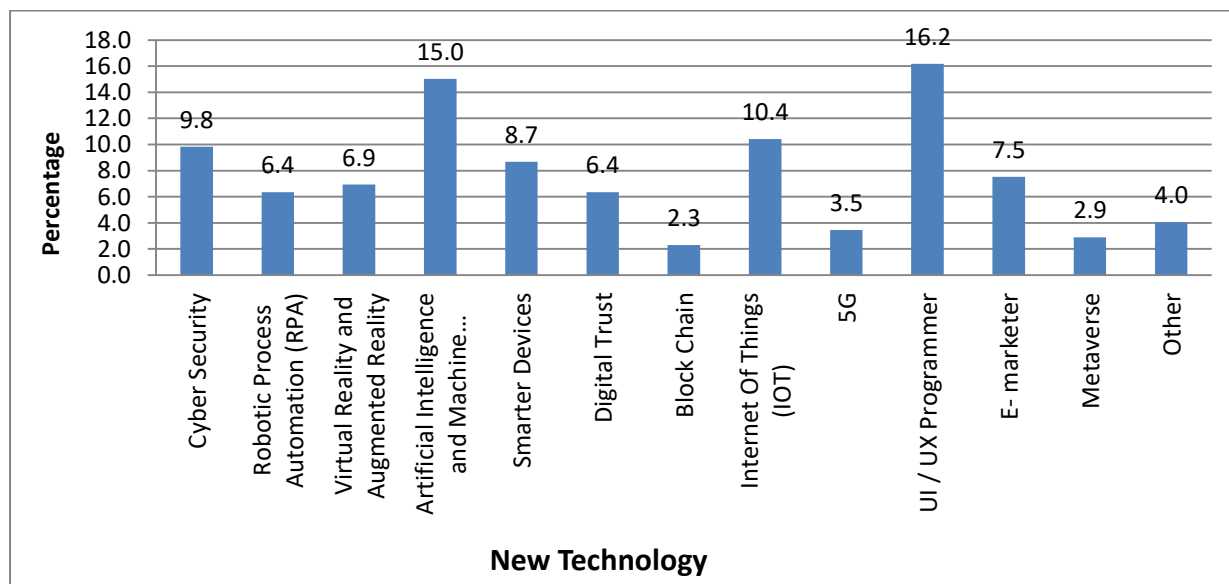
Employers in the ICT sector prefer candidates with formal degrees due to the comprehensive education and training that these programmes provide. Employers see a degree as an indication of a candidate's dedication and fundamental understanding of the field.

Figure 3. 15: Percentage distribution of expect competencies from job seekers coming from TVET institutes



When recruiting employees from TVET institutes for the ICT sector, more than 80% of employers consider job-specific skills and computer literacy to be essential competencies. Furthermore, a large number of employers emphasize the importance of soft skills, such as attitude, personality, and commitment. They emphasize the importance of effectively providing these skills at TVET institutes in order to meet the demands of the industry.

Figure 3. 16: Percentage Distribution of New Technology Trends Available in the ICT Industries



UI/UX Programmer, Artificial Intelligence and Machine Learning, Internet of Things (IOT), and Cyber Security technology trends are used in approximately half of all industries. As a result, TVET institutes must constantly update and improve their training programmes to ensure that they are in line with the technologies used in the ICT sector today.

Table 3. 3: High Demanded Occupations in the ICT Industries

- Software Engineer
- Software Developer
- Engineer - Quality Assurance
- Information Technology (IT) Engineer
- System Engineer
- Data Management Executive
- Resident Project Manager
- Consultant (Private Sector)
- Data Analyst
- Engineer - Product Development
- Computer Engineer
- Organization Analyst
- Linux Developer
- Web and Multimedia Developer
- Web Developer
- Database / Information Specialist (Geology)
- Computer Network Engineer
- General Manager - Network (Consultant)

According to the survey results, the occupations listed above are the most in-demand in the ICT industries. Certificate-level computer courses, such as Computer Applications Assistant and ICT Technician, are in high demand in the TVET sector. As a result, it is critical to close these skills gaps and mismatches by improving TVET programmes up to the degree level to align with industry demand. Furthermore, awareness campaigns aimed at students interested in pursuing TVET should be expanded to highlight these in-demand occupations and inform students about the numerous job opportunities available in the ICT industry.

3.1.4 Construction Sector

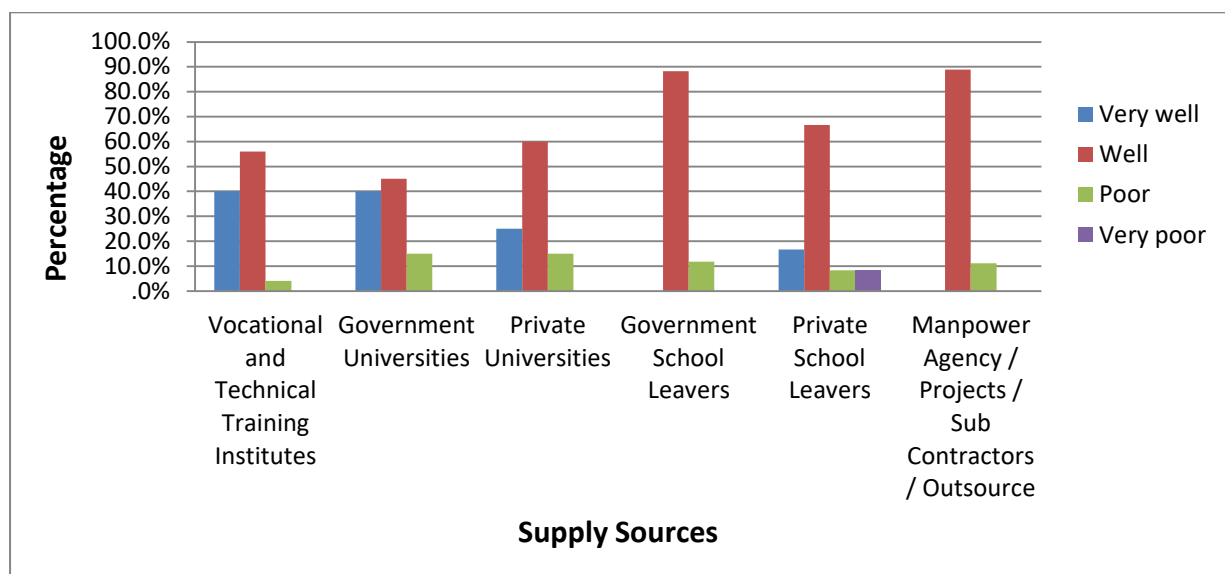
The construction sector in Sri Lanka plays an important role to the country's economic development, contributing significantly to GDP, employment, and infrastructure growth. As per the ADB's report, the construction industry is one of the major contributors to Sri Lanka's GDP, contributing around 7-9% annually.

Major infrastructure projects, such as Colombo Port City, the Central Expressway, and various urban development initiatives under the Megapolis plan, are driving the sector's growth. Rapid urbanization has boosted the demand for residential and commercial buildings. High-rise apartments and mixed-use developments are becoming more prevalent in cities of the Western Province.

Construction industry has seen a significant downturn in recent years, due to a multitude of economic, political, and external factors. The country has been experiencing an economic crisis shaped by high debt, currency depreciation, and inflation. These economic challenges have impacted investor confidence and limited the availability of funds for large-scale construction projects.

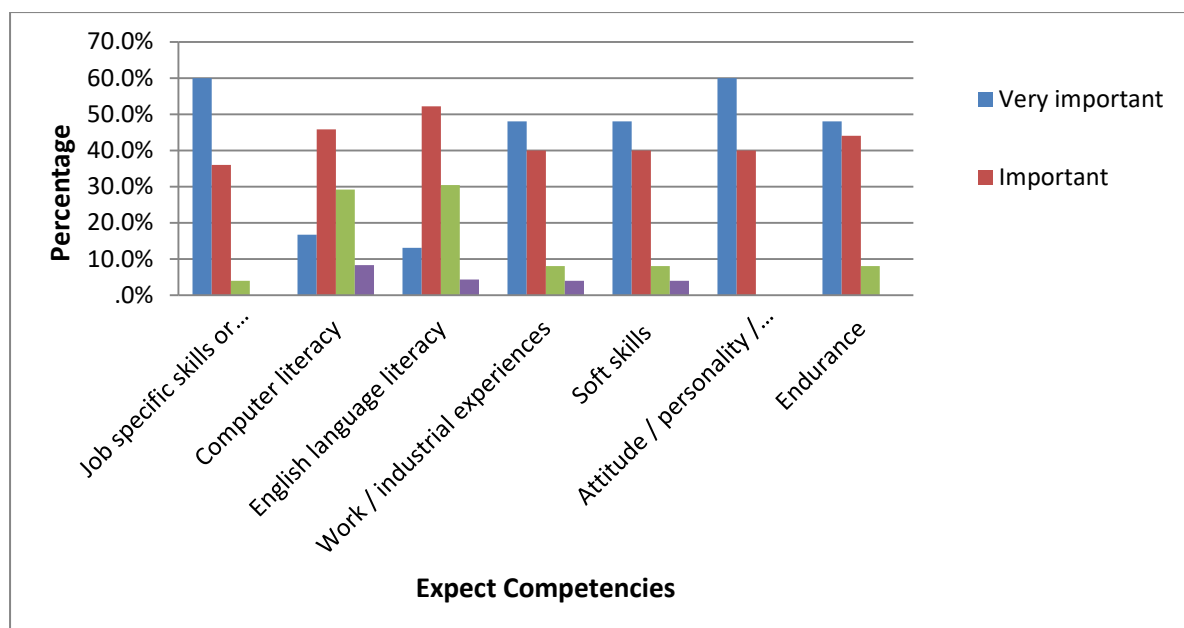
The COVID-19 pandemic severely disrupted the construction industry, causing project delays, labour shortages, and disruptions in material supply chains. During the pandemic, repeated lockdowns and movement restrictions limited on-site work, causing significant project delays.

Figure 3. 17: Percentage Distribution of Performance of Employees by Supply Sources



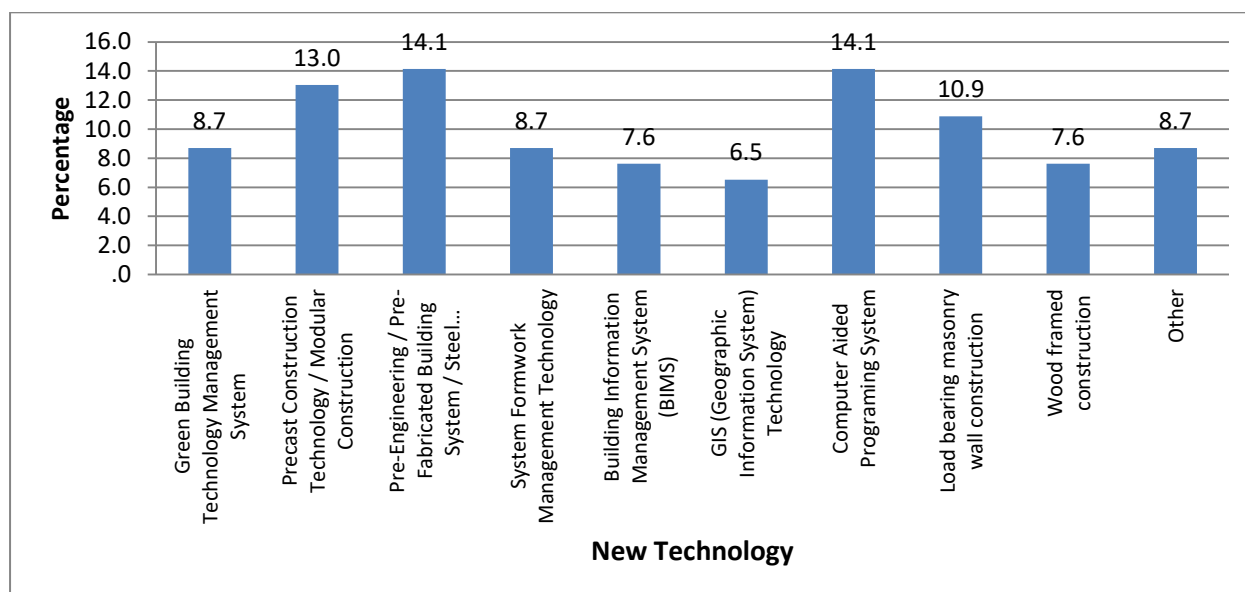
Across all supply sources, the majority of employers were satisfied with the performance of employees who graduated from TVET institutes. This indicates that these employers found the skills and competencies of individuals with such educational backgrounds to meet their expectations.

Figure 3. 18: Percentage distribution of expect competencies from job seekers coming from TVET institutes



When recruiting from TVET institutes for the construction industry, more than 60% of employers consider job-specific skills, as well as attitude, personality, and commitment, to be essential competencies. Furthermore, a large number of employers emphasize the value of soft skills, work/industrial experiences, and endurance. They emphasize the importance of effectively providing these skills at TVET institutes in order to meet the demands of the industry.

Figure 3. 19: Percentage Distribution of New Technology Trends Available in the Construction Industries



Precast Construction Technology / Modular Construction, Pre-Engineering / Pre-Fabricated Building System / Steel Construction, Computer Aided Programming System, and Load bearing masonry wall construction technology trends are used by approximately fifty percent of the construction industry. Therefore, it is important for TVET institutes to provide and improve their programmes in order to stay current with the latest technology trends that align with the technologies currently used in the sector. The TVEC must also review existing curricula to see if these technologies are integrated into the respective occupations.

Table 3. 4: High Demanded Occupations in the Construction Industries

- Mason (General)
- Carpenter
- Welder
- Electrician
- Quantity Surveyor
- Draughtsman
- Pipe Fitter
- Site Supervisor
- Machine Tool Operator (General)
- Technical Officer (Civil)
- Technician (General)
- Air Conditioning Mechanic
- Air Conditioning Technician

According to the survey results, the occupations listed above are the most in-demand in the construction industry. As a result, it is necessary to coordinate supply-side TVET programmes with industry demand. Furthermore, awareness programmes aimed at students interested in pursuing technical and vocational training should be expanded to highlight these in-demand occupations and inform students about the abundance of job opportunities available in the industry.

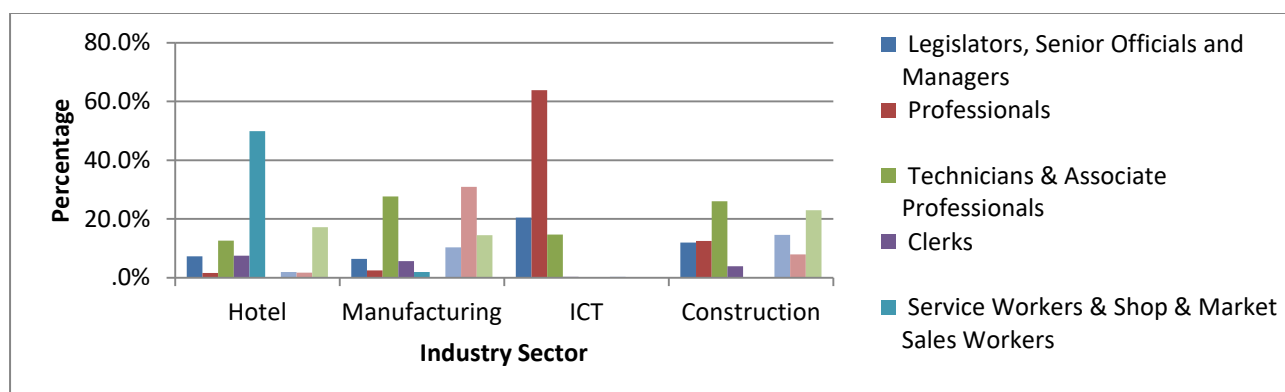
Welders and Electricians play critical roles in the development and maintenance of Sri Lanka's infrastructure and industries. With the proper training and certification, these professionals can secure steady employment and make significant contributions to a variety of industries. Addressing challenges such as the skills gap and retention will be critical to the continued growth and effectiveness of these trades.

3.1.5 Employment

Table 3. 5: Percentage Distribution of Employees by Main Occupational Category and Sector - 2023

Main Occupational Category	Hotel	Manufacturing	ICT	Construction	Total
	%	%	%	%	%
Legislators, Senior Officials and Managers	7.3	6.4	20.5	12.0	7.9
Professionals	1.7	2.5	63.8	12.5	8.2
Technicians & Associate Professionals	12.6	27.7	14.7	26.0	24.7
Clerks	7.5	5.6	.3	3.9	5.3
Service Workers & Shop & Market Sales Workers	49.9	2.0	.2	.0	7.4
Skilled Agricultural & Fishery Workers	.2	.0	.0	.0	.0
Craft & Related Workers	2.0	10.3	.3	14.6	8.5
Plant and Machine Operators and Assemblers	1.7	31.0	.0	8.0	24.3
Elementary Occupations	17.2	14.5	.2	23.0	13.6
Total	100.0	100.0	100.0	100.0	100.0

Figure 3. 20: Percentage Distribution of Employees by Main Occupational Category and Sector - 2023

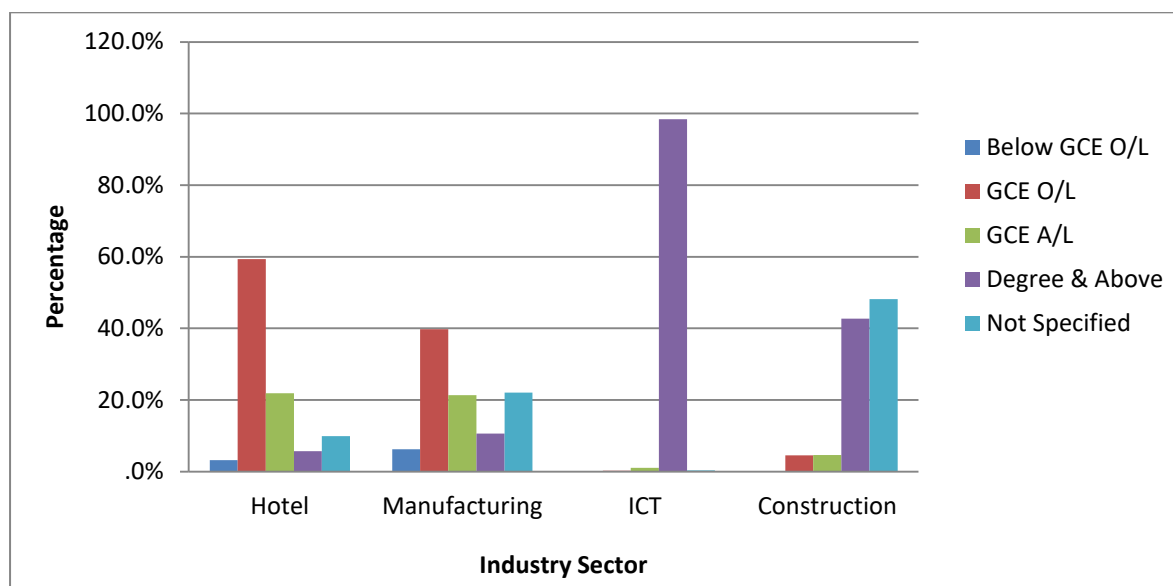


According to the survey results shown in the above table and corresponding graph, the majority of ICT industry employees (around 64%) classified into the Professional category. Furthermore, the majority (around 50%) of hotel employees were in the Service Workers & Shop & Market Sales Workers category, whereas approximately 60% of manufacturing employees were in the Plant and Machine Operators and Assemblers category and Technicians & Associate Professionals category. Craft & Related Workers and Technicians & Associate Professionals accounted for approximately 40% of all construction employees.

Table 3. 6: Percentage Distribution of Employees by Educational Requirement and Sector - 2023

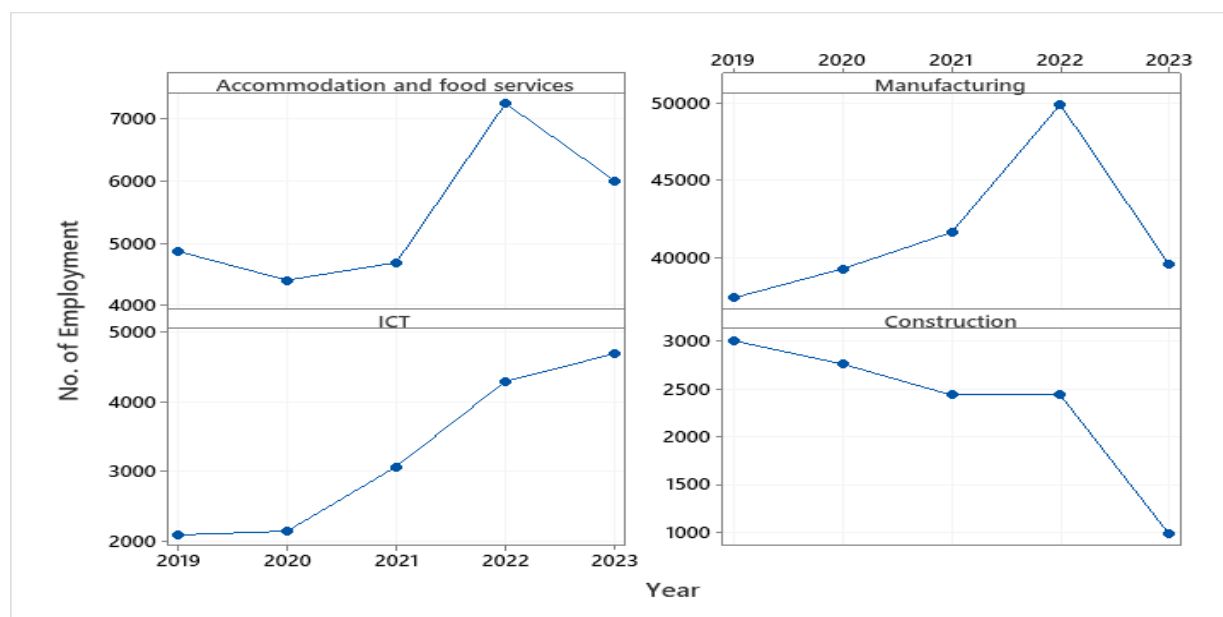
Educational Requirement	Hotel	Manufacturing	ICT	Construction	Total
	%	%	%	%	%
Below GCE O/L	3.2	6.2	.0	.0	5.1
GCE O/L	59.4	39.8	.2	4.6	37.8
GCE A/L	21.9	21.4	1.0	4.7	19.2
Degree & Above	5.7	10.6	98.4	42.7	18.7
Not Specified	9.9	22.1	.3	48.1	19.2
Total	100.0	100.0	100.0	100.0	100.0

Figure 3. 21: Percentage Distribution of Employees by Educational Requirement and Sector - 2023



The figures above show that the majority of ICT sector employees were in the Professional category, with a degree level educational qualification. As a result, it is critical to focus on employability and industry-specific educational requirements, and to improve technical and vocational training programs to meet industry demand.

Figure 3. 22: Distribution of Number of Employments by Sector (from 2019 to 2023)

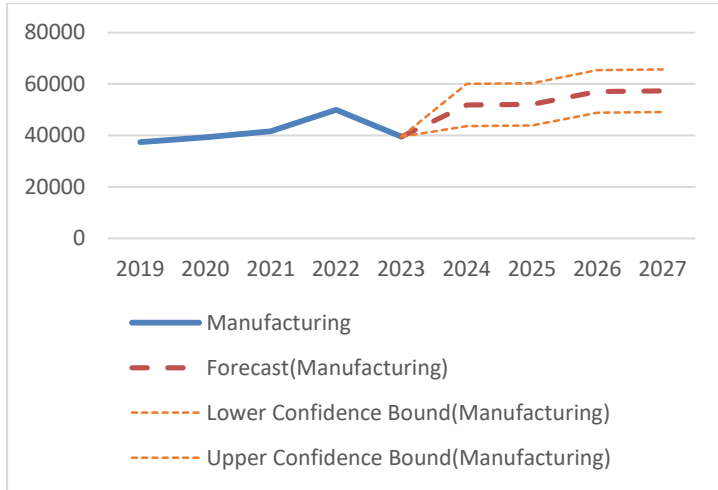


Source: Employment Demand Survey for the Western Province, TVEC

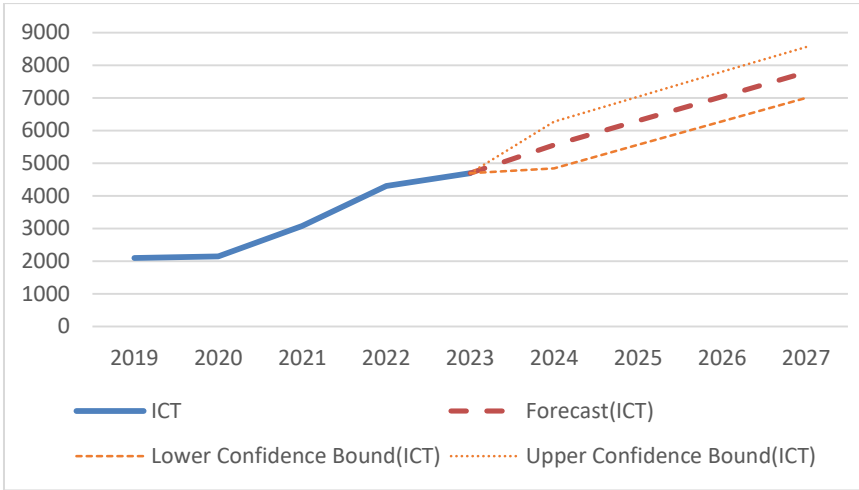
Based on the survey results shown in the above graph, Construction sector employment has been decreasing over the period, while the ICT sector employment has been increasing. Employment in the Accommodation & food services, Manufacturing and Construction sectors decreased in 2023 compared to the previous year, except for the ICT sector. Therefore, employment trends in these sectors reflect the impact of various economic and social factors, such as the Easter Sunday attack, the COVID-19 pandemic and economic crisis.

3.1.6 Trends and Forecast of Selected Four Industry Sectors

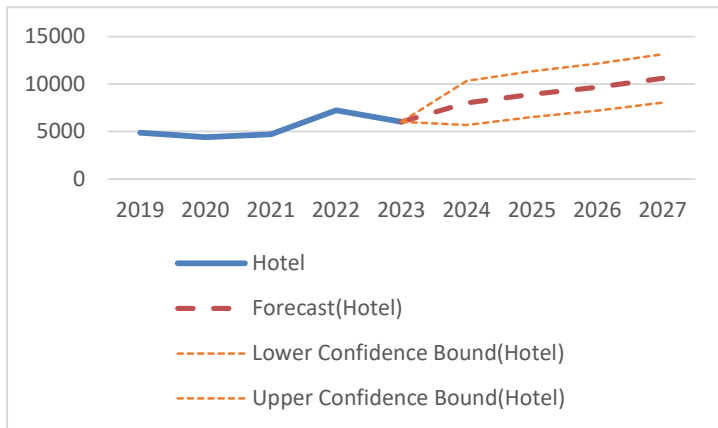
Manufacturing



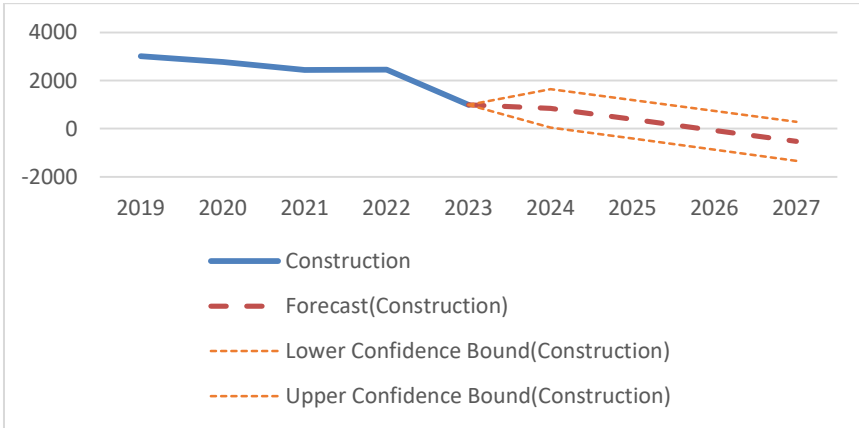
ICT



Hotel



Construction



As shown in the future forecast of the above sectors, there are increasing trends over the next three years in Manufacturing, ICT and Accommodation & food services sectors, except for the Construction sector. Given these insights, it is crucial for policymakers to align their supply-side planning and resource allocation strategies to capitalize on the anticipated growth opportunities in the Manufacturing, ICT, and Accommodation & Food Services sectors.

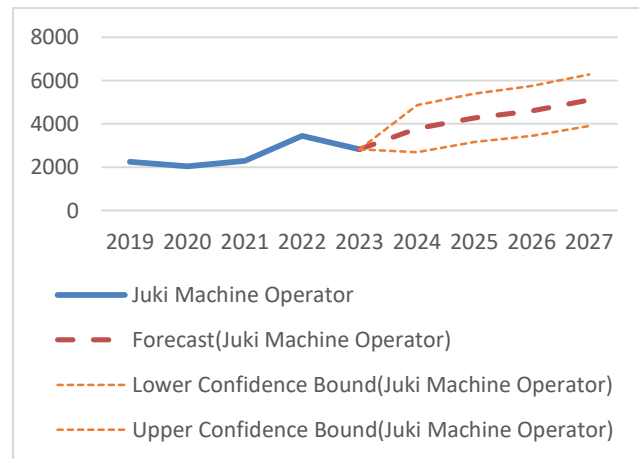
3.1.7 Trends and Forecast of Highly Employed Occupations of Each Industry Sector in the Year 2023

Manufacturing Sector

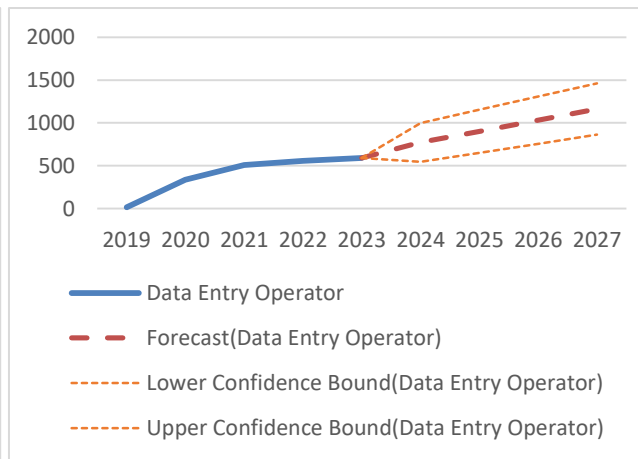
Table 3. 7: Highly Employed Occupations in the Year 2023

Occupation
Sewing Machine Operator
Juki Machine Operator
Knitting Machine Operator
Assembler - Electrical Equipment
Data Entry Operator
Textile Technologist

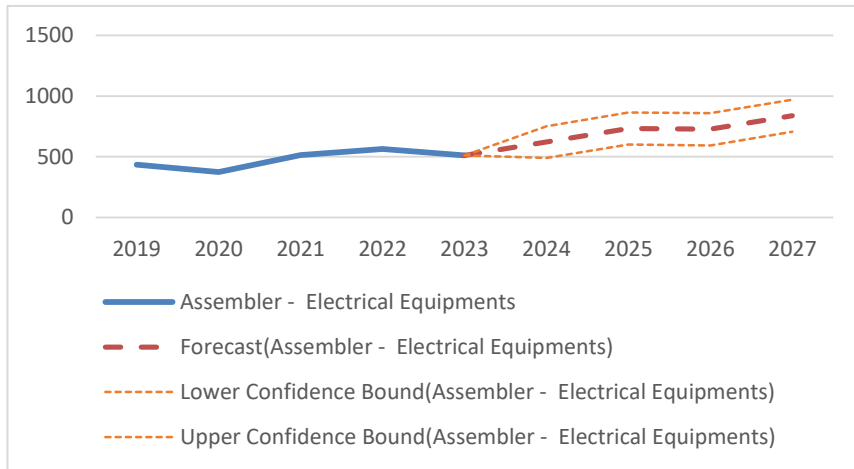
Juki Machine Operator



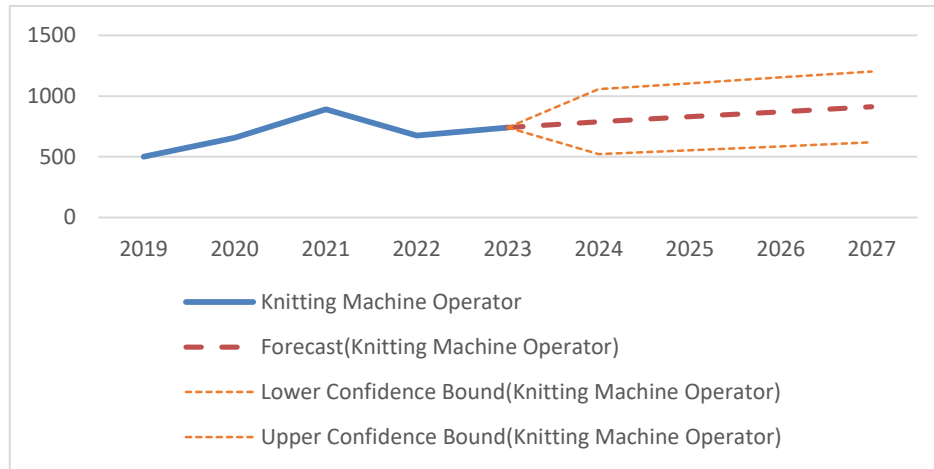
Data Entry Operator



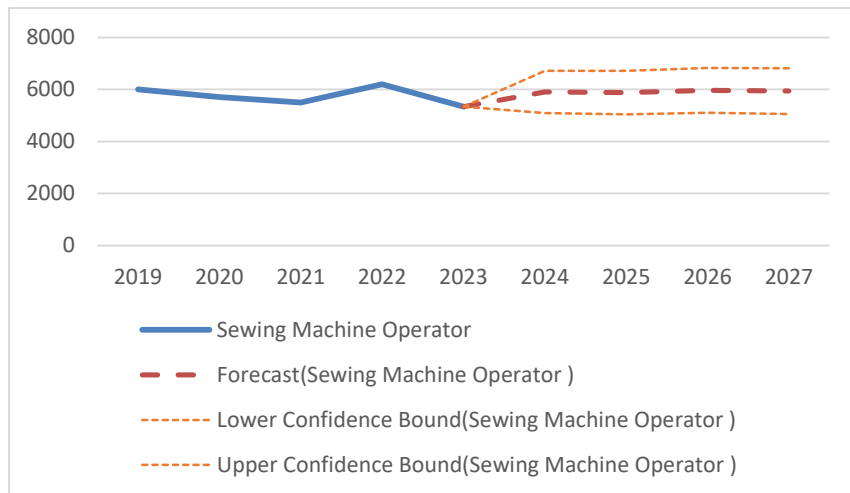
Assembler – Electrical Equipments



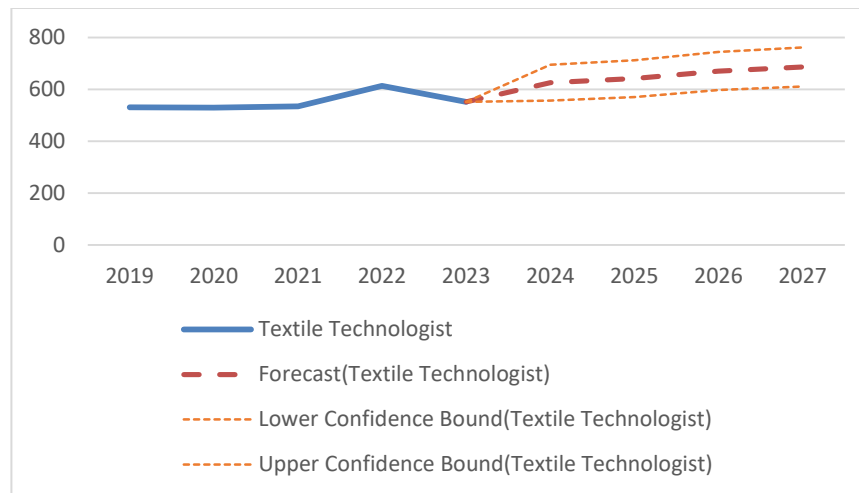
Knitting Machine Operator



Sewing Machine Operator



Textile Technologist



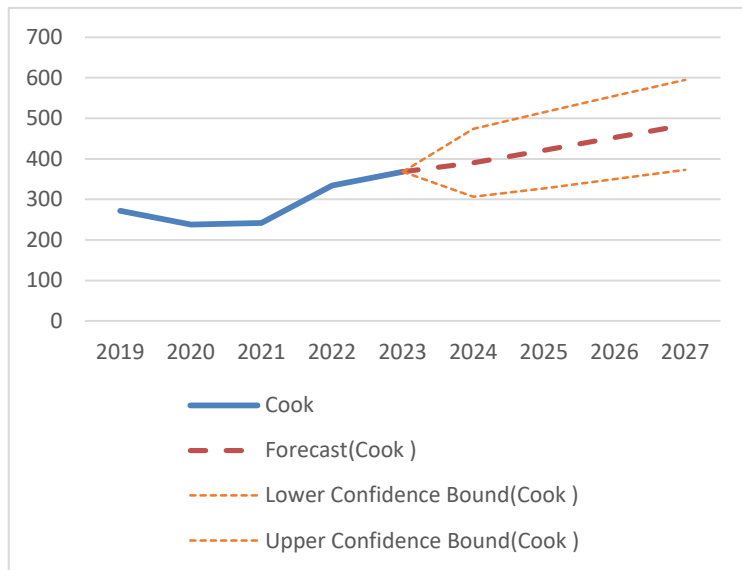
The graphs above depict previous employment trends and future forecasts for the most in-demand occupations in 2023. There is an increase in demand for these occupations over the next three years. As a result, supply-side technical and vocational training programs should be aligned with future demand.

Hotel Sector

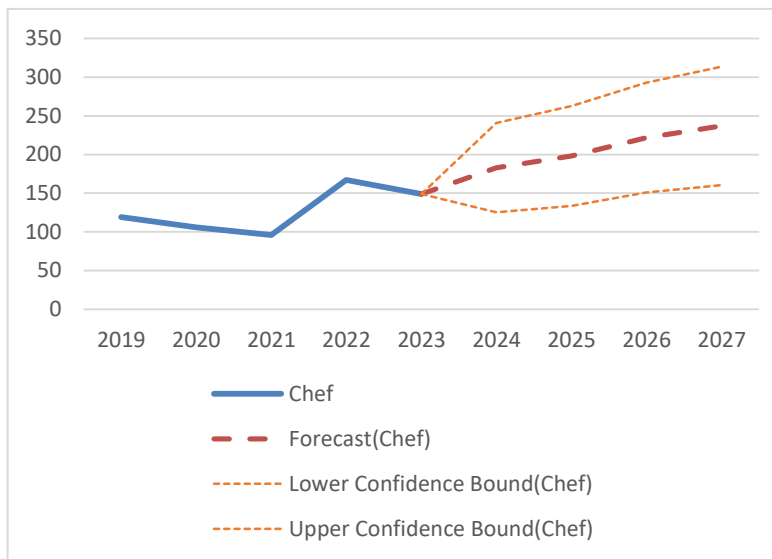
Table 3. 8: Highly Employed Occupations in the Year 2023

Occupation
Room Boy
Cook
Steward (Hotels and Restaurants)
Waiter
Receptionist (Hotels)
Chef

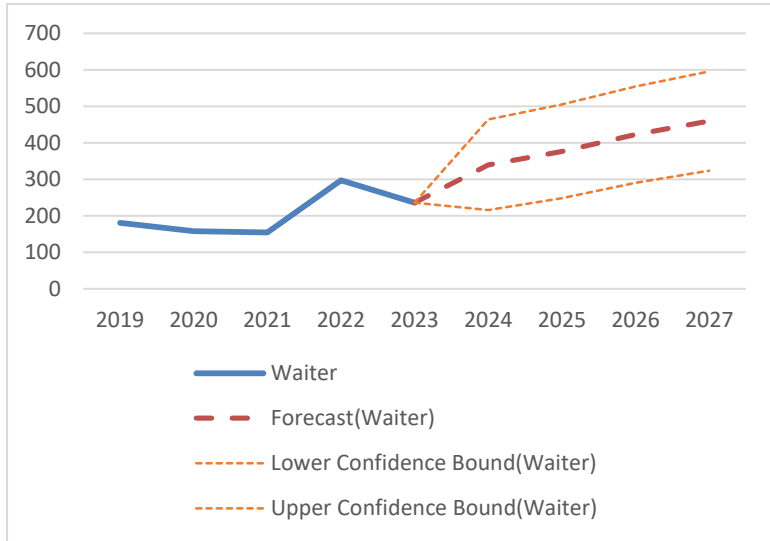
Cook



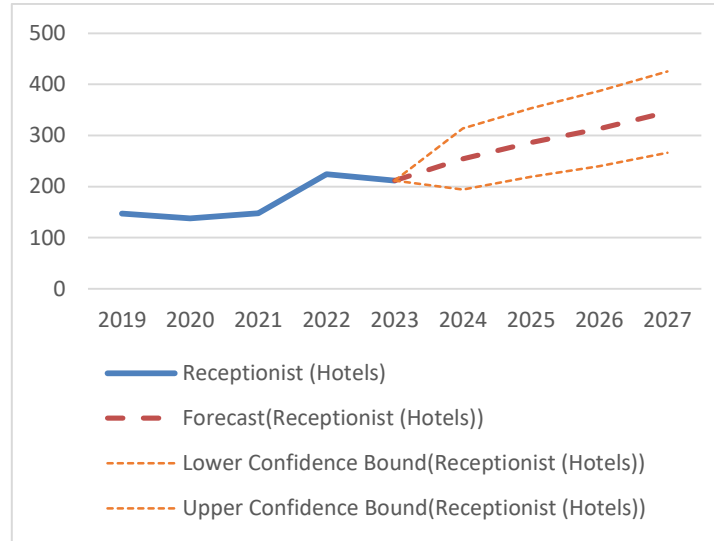
Chef



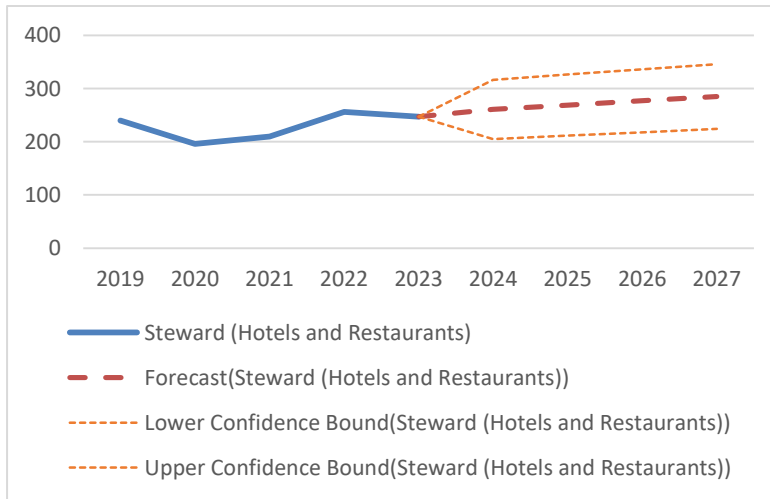
Waiter



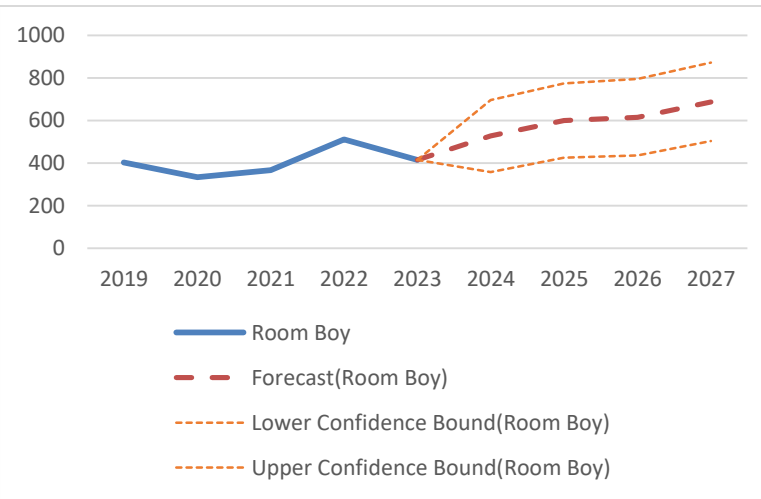
Receptionist (Hotels)



Steward (Hotels and Restaurants)



Room Boy

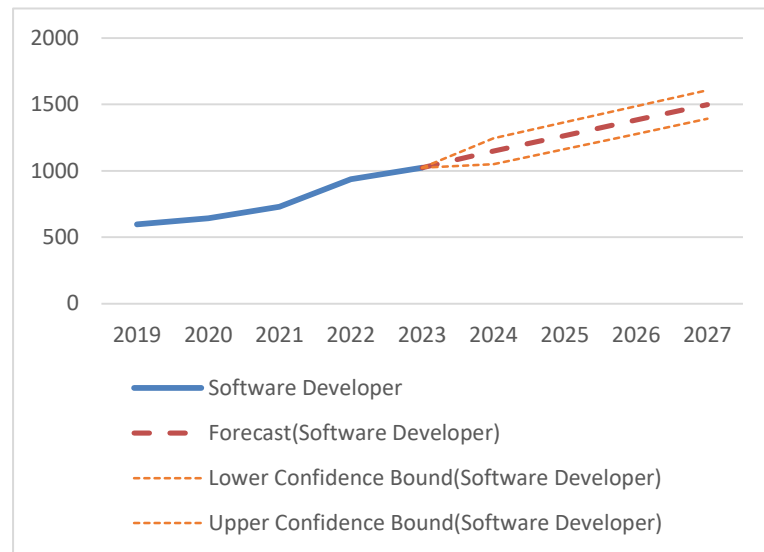


ICT Sector

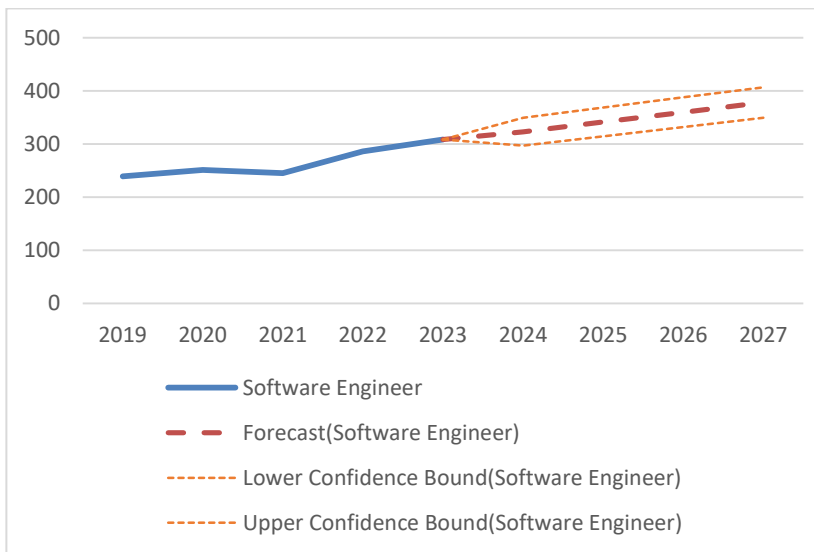
Table 3. 9: Highly Employed Occupations in the Year 2023

Occupation
Software Developer
Associate System Engineer
Consultant (Private Sector)
Software Engineer
Engineer - Quality Assurance
System Engineer

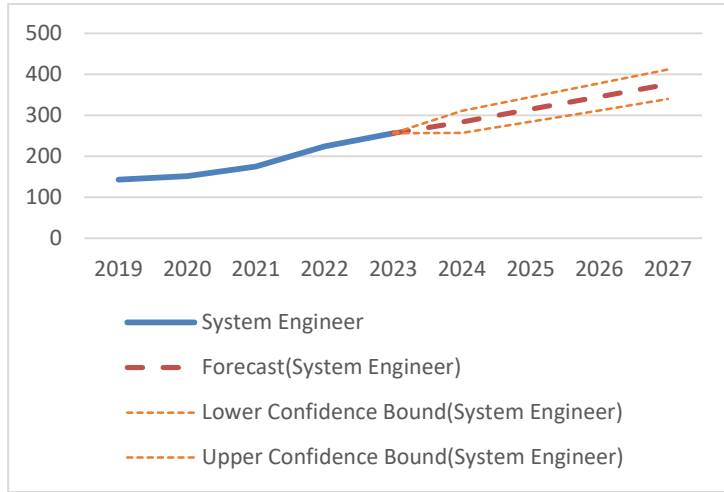
Software Developer



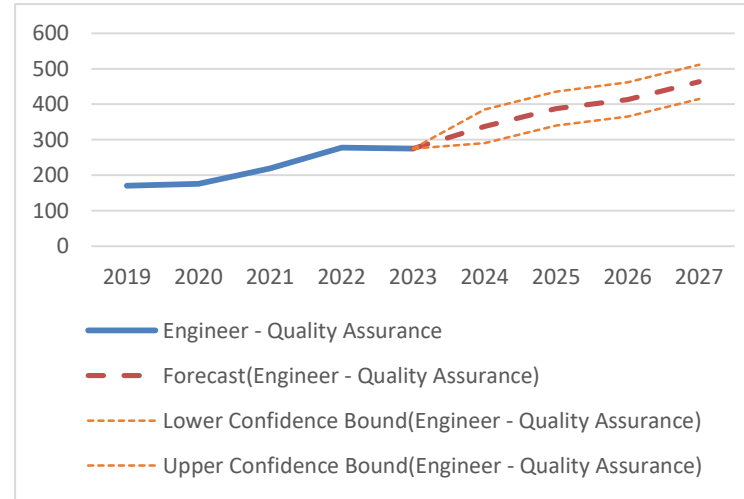
Software Engineer



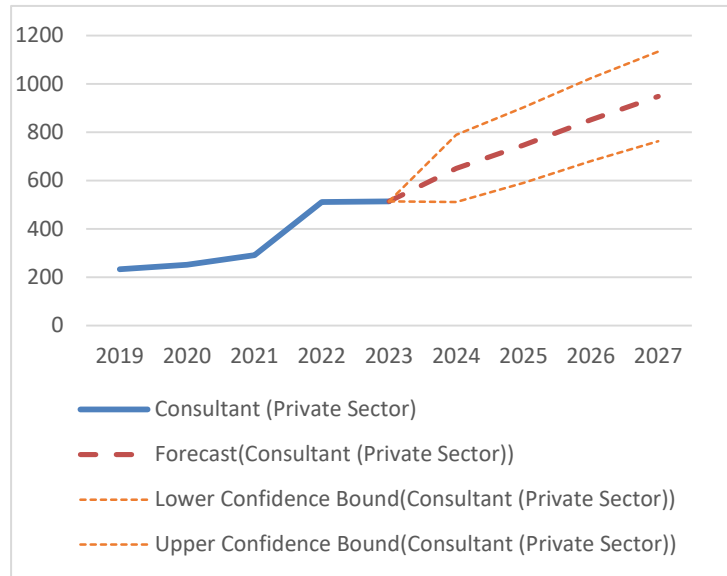
System Engineer



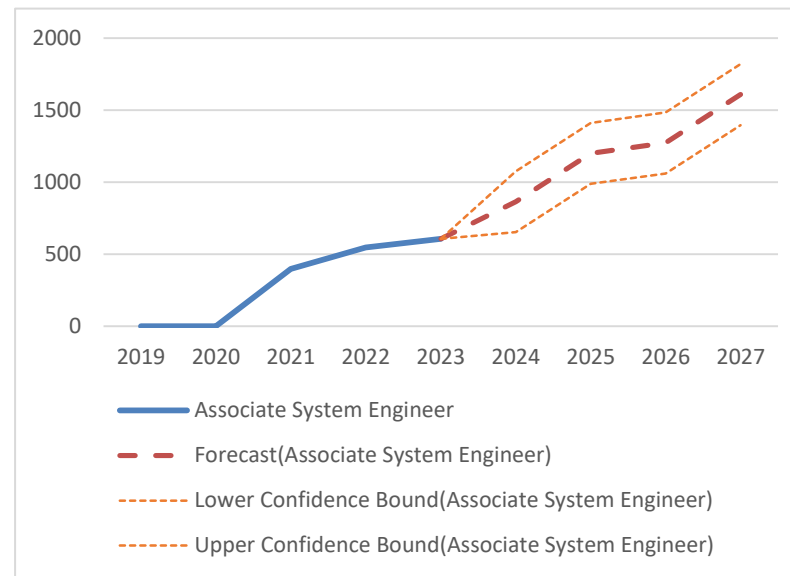
Engineer - Quality Assurance



Consultant (Private Sector)



Associate System Engineer

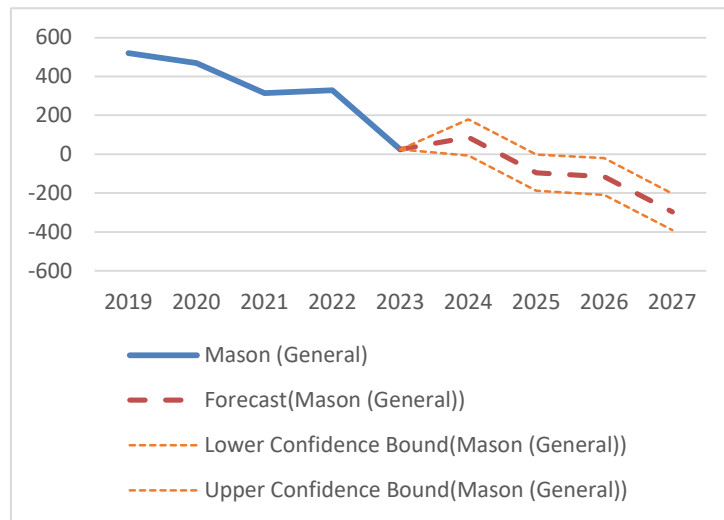


Construction Sector

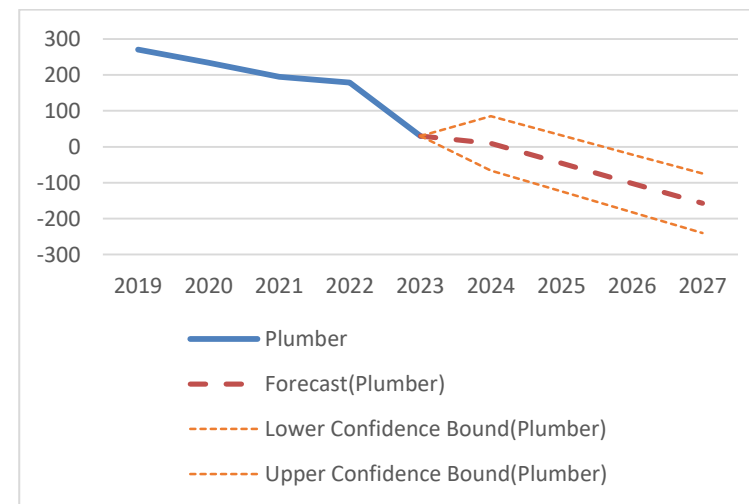
Table 3. 10: Highly Employed Occupations in the Year 2023

Occupation
Quantity Surveyor
Technical Officer (Civil)
Plumber
Welder
Electrician
Mason (General)

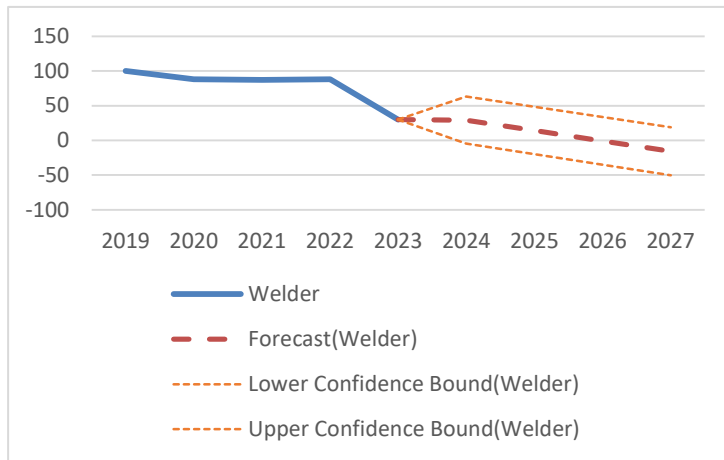
Mason (General)



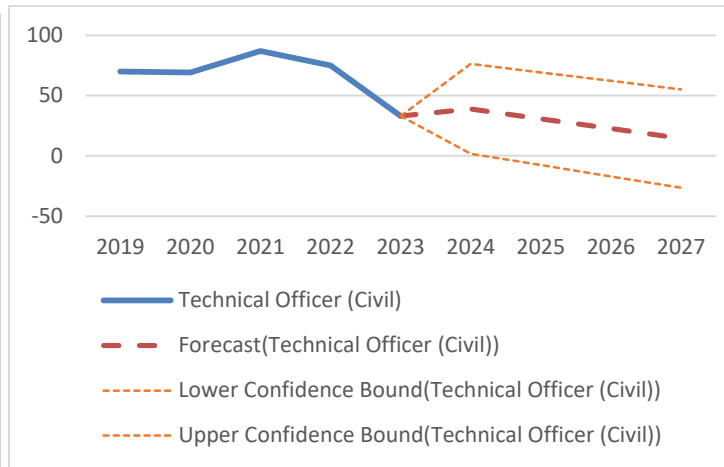
Plumber



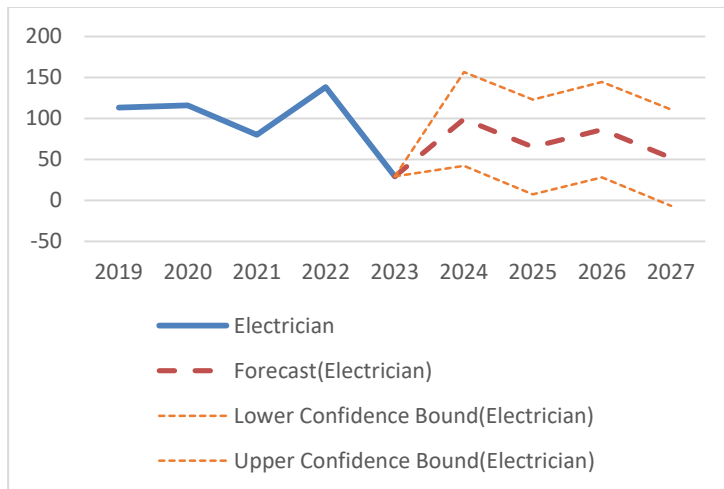
Welder



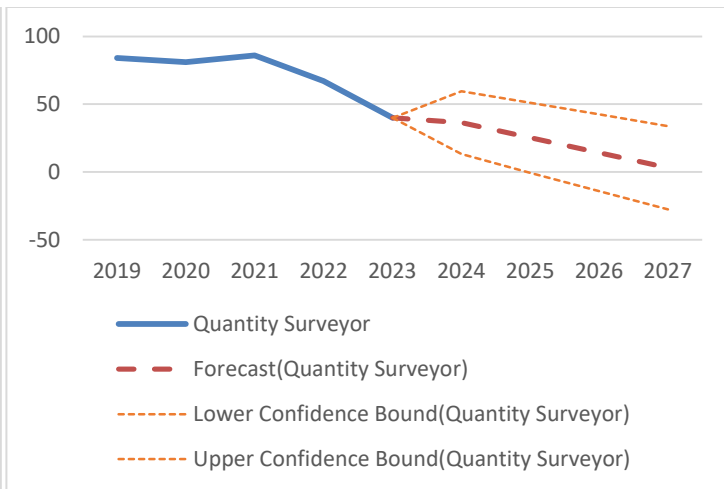
Technical Officer (Civil)



Electrician



Quantity Surveyor



As indicated in the future forecast for construction occupations, most of the above occupations show a decreasing trend over the next three years. Given this information, it is critical to carefully plan supply-side technical and vocational training programmes to align with expected industry demand.

Therefore, it is critical to provide students with awareness programmes that inform them about changing industry demands and requirements. By providing students with this knowledge, institutions can better guide them in selecting appropriate training programs and career paths that are aligned with future job market demands in the Construction sector. This proactive approach will help ensure that the future workforce is well-equipped to meet the industry's changing requirements.

3.2 Livelihood Occupations in the Informal sectors of the Western Province

The Western Province in Sri Lanka is a significant hub, with a diverse range of livelihood occupations across its three districts: Colombo, Gampaha, and Kalutara. The majority of workers in the Western Province are engaged in the informal sector, which appears to be very significant for the low-income strata of society. Notably, more than 70% of employees engaged in livelihood occupations are women, as these opportunities allow them to work outside the home while providing care for their families. Considering the occupational categories in livelihood occupations, majority of the employees were engaged in the Manufacture of food products, Manufacture of textiles and Manufacture of wood products categories. However, it appears that individuals engaged in these occupations lack the skills to advance their businesses to higher levels, highlighting the need for skills development training. Therefore, it is crucial for government institutions to provide vocational training to persons engaged in the livelihood occupations, as per their specific requirements.

Table 3. 11: Livelihood Occupational Categories by Sub sector

Industry Categories	No. of Employment		
	Colombo	Gampaha	Kalutara
Manufacture of food products	727	1044	45
Manufacture of textiles	721	616	23
Manufacture of leather & related products	75	57	4
Manufacture of footwear	67	41	6
Manufacture of wood products	113	88	4
Manufacture of paper products	0	0	0
Manufacture of rubber and plastic products	0	0	0
Manufacture of metal products	19	49	4
Manufacture of electrical products	2	6	17
Manufacture of machinery and equipment	0	0	16
Other manufacturing	424	772	60
Total	2148	2673	179

Source: Planning Division of each District Secretariat, 2023

According to the table above, the Western Province of Sri Lanka provides a diverse range of livelihood opportunities across multiple subsectors. The Gampaha district had the most livelihood occupational subcategories, while Kalutara had the fewest.

Table 3. 12: Demanded Occupations / Trades / Fields in the Western Province

3.3.1 Colombo District

- Animal husbandry
- Automobile / Painting engine
- Batik production
- Beauty culture
- Cake production
- Capsicum cultivation
- Car repair
- Carpentry
- Cement related products
- Coconut shell products
- Coir, productions related to fiber
- Computer / Graphic
- Cosmetology
- Courier, Uber services
- Crafting
- Cultivation of vine oranges
- Elder care services
- Electrical work
- Fiberglass suppliers
- Food products (bakery, sweets, sauce, chutney)
- Footwear manufacturing
- Garment industry
- Handicrafts, bags, footwear related products
- Herbal products
- Hotel
- Housekeeping at Homes (Local)
- Jewellery making
- Local domestic service
- Making garage doors
- Manufacture of lampshades
- Manufacture of soap
- Manufacturing of Bags (Leather, Cargill's bags, School bags, Ladies hand bags)
- Mason's work
- Mobile phone repair
- Motorcycle repair
- Mushroom cultivation
- Ornamental fish
- Ornamental floriculture
- Packaging of spices
- Plumber
- Poultry farming and dairy farming
- Retail trade
- Sale of rice parcels
- Sales Assistant
- Selling snacks
- Sewing bags, pencils, women's hand bags
- Sewing clothes
- Short eats, sweets and bite products
- Spice products
- Tailoring of women's and children's clothing
- Three wheeler driver
- Tile work
- Tourist restaurants
- Toy manufacturing

3.3.2 Gampaha District

- Animal husbandry
- Auto mobile / Painting engine
- Batik production
- Beauty culture
- Brass and Welding
- Cake production
- Carpentry
- Cement related products
- Coconut shell products
- Coir, productions related to fiber
- Compost making
- Crafting
- Elder care services
- Electrical work
- Fiberglass suppliers
- Food products (bakery, sweets, sauce, chutney)
- Footwear manufacturing
- Footwear products
- Garment industry
- Handicrafts, bags, footwear related products
- Herbal products
- Jewellery making
- Making food
- Making garage doors
- Manufacture of lampshades
- Manufacture of soap
- Manufacturing of Bags (Leather, Cargill's bags, School bags, Ladies hand bags)
- Mason's work
- Motorcycle repair
- Mushroom cultivation
- Ornamental fish
- Ornamental floriculture
- Packaging of spices

- Poultry farming and dairy farming
- Retail trade
- Sewing bags, pencils, women's hand bags
- Sewing clothes
- Short eats, sweets and bite products
- Spice products
- Tailoring of women's and children's clothing
- Tourist restaurants
- Toy manufacturing
- Tricycle driver
- Vehicle repairing
- Wiring works

3.3.3 Kalutara District

- Agricultural products
- Aloe Vera related products
- Anthurium and ornamental floriculture
- Auto AC
- Auto Electrical
- Auto Mechanic
- Auto Painting
- Auto Tinkering
- Automation and Robotics Technician
- Batik industry
- Beauty culture
- Cake and party decorations
- Carpentry
- Carpet manufacturing
- Coconut oil production
- Collection of old iron
- Computer Technician
- Computer/Telephone Repair
- Confectionery production
- Construction Equipment Technician
- Cosmetology
- Cultivation of turmeric
- Diesel Engine Mechanic
- Diesel Pump Mechanic
- Dried mackerel and mackerel production
- Electrical supplies and machine repairs
- Electronic Technology
- Fiber courses
- Fish market
- Floriculture
- Footwear manufacturing
- Freshwater fish farming
- Fruit and vegetable cultivation
- Gardening
- Garment industry
- Goat and poultry farming
- Handicrafts (Pan/coconut related products/ribbon designs)
- Hotel
- Industrial Mechatronics Technician
- Industrial Sewing Machine Technician
- Jewellery Making
- Making candles
- Making sweets
- Manufacture of curtains and handbags
- Manufacture of identification
- Manufacture of lamps and lanterns
- Manufacture of soap and soap powder
- Manufacture of sweets and various food products
- Masonry work
- Mobile Phone Repair
- Mushroom related product
- Needlework
- Nursing service
- Ornamental floriculture
- Paint products
- Painting
- Pan and Wetakeiya related products
- Poultry trade
- Production of Jaggery Sweets
- Production of sesame seeds
- Production of types of bites
- Sewing of bags and clothes
- Shoes, bags manufacturing
- Snacks and Spice related product
- Tailoring and sale of ready-made garments
- Tailoring of women's and children's clothing
- Tea cultivation
- Telephone repair
- Vehicle repair
- Wall decoration products
- Welder
- Yoghurt production

Source: Planning Division of each District Secretariat, 2023

Table 3. 13 : Livelihood Occupations/ Sub Categories Requiring Vocational & Technical Training in the Western Province

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • A short training course in garden beautification • A tutorial on how to sew a teddy bear • Batik practice • Bite production. • Cake making requires more practice • Children's sandal making • Food safety • Handicrafts • ITI/IDB Food Technology Training | <ul style="list-style-type: none"> • Java batik training required • Lightweight footwear • Making proper arrangement for export • Men's Sandal Making Sandal making • Modern technical knowledge • Tailoring - Men's • Technical training. • Trained High Speed Sewing Machine Technician | <ul style="list-style-type: none"> • Training programs on online marketing methods • Training related to land floriculture • Wax Mixture Wax Spraying Wax Breaking Wax Patterns • Wax removal • Women's Flat Sandals • Women's handbags |
|---|---|---|

3.4.2 Gampaha District

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> • A course on icing cakes and flower making • A course on making icing flowers • A course related to online business • A technical training on related products • A training at the mushroom training center is required • A Training in Management Marketing • A training in the contract field • About gardening • A training on finding markets • A training on other detergent products • A training on the production of popcorn • A tutorial on Anthurium Orchid Flowering • A tutorial on cake icing • A tutorial on wedding dress tailoring • About handbag innovation | <ul style="list-style-type: none"> • About making different types of food • About sewing denim pants shirts • All training in broom/brush manufacturing • An exercise in marketing • Accounting • A bakery course • Beauty and cake making training • Mushroom training • Bite production • Brood stock Keeping & Fish breeding • Cake making training including wedding cakes • Carpet Design • Clay pastel production training • Compost fertilizer production and Earthworm fertilizer production • Confectionery manufacturing • Course on ornamental fish | <ul style="list-style-type: none"> • Cupcake making practice • Curtain • Curtain sewing training • Diploma in Cake decoration • Entrepreneurship training • Fashion Designing • FCAW Course (Welding related) • Fish farming • Floriculture • Following the making of spices • Food Dehydration Technology Training • Footwear Manufacturing Training/Sacrifices/Hair Bands • Further training courses in dressmaking • Further training in Incense making • Further training in vehicle painting • Further training in welding work • Further training on chutney |
|--|--|---|

- Government recognized training
- Hair and Beauty
- How to cut fabric using a cutter machine
- in Financial Management
- Instructions for getting the product ready for export
- IT design
- It takes practice to make wine
- Knowledge of soap making implied
- Learned about plant nurseries
- Leather bag sewing training
- Liquid soap/ soap powder
- Making the dough
- Manufacture of ready-made garments
- Mechanical training like German Tech
- Mushroom pot production
- NVQ training and animal husbandry training
- On Cattle Management
- On food production and soap production
- Other flour-based products
- Packaging Sales
- Dehydration Training
- Painting and embroidery training
- Party decoration training
- Pattern Making Training and Marketing Training
- Plant nursery training
- Production and storage of spice grains
- Professional certificate holders
- Raw cloth bag training
- Regarding betel nut cultivation
- Regarding packaging of vegetables/fruits through dehydration/value addition
- Regarding the types of chutneys
- Saree jacket sewing training
- School Bag Sewing Tutorial
- School bags
- Security Household Crops
- Sesame curl product
- Sewing related NVQ training
- Silk Batik Practice
- Snoring Cream
- Storage of garlic/ginger paste
- Technical knowledge of breeding chicks
- Technical training
- Technical training in coffee powder production
- Technical Training on Vermin Compost Production
- Training for fireworks production
- Training for sewing coats (for weddings).
- Training in animal husbandry
- Training in Anthurium Flowering
- Training in coconut shell design
- Training in cow oil and cheese production
- Various courses in garment industry
- Training in dressmaking and dressmaking
- Training in food packaging and candle making is expected.
- Training in Garment Machines
- Training in making various other bead related designs
- Training in Medicinal Plant Cultivation
- Training in modern manufacturing and repair of travel bags is required
- Training in retention techniques and labeling is required.
- Training in tea cultivation
- Training in the use of technology for soap production
- Training on new milling machinery
- Training on ornamental flowers
- Training on other desserts
- Training on physical resources
- Training on scented soaps
- Training on starting and running the business
- Training related to bag and shoe manufacturing

3.4.3 Kalutara District

- Availability of convenient machines
- Backhoe Operator (Excavator Operator)
- Basic training
- Batik trained programs

- Cakes and Pastries/Chefs
- Care giver
- Chef
- Fixed technology of construction of plantation houses
- Computer-aided Web designing Robotic engineering
- Design training in tailoring using modern techniques
- Disease pest control and value addition products
- Drying methods and use of racks
- Fashion Design Training in creating new designs and well finished designs
- Fishing boat engines are new
- Food Drying Qualification (NVQ)
- Formal training in cosmetology
- Heavy Vehicle Industrial Technology
- Industrial Electrician
- Juki Machine Technician
- All training programs related to footwear production and training on market prices
- Aquatic cultivator
- Knowledge of new techniques
- Knowledge of new varieties/ varieties with least disease damage
- Landscaping
- Batik design
- Hand Grinder and Grill Machine
- Manufacture of ornamental fish feed
- Mobile phone repair
- Motorcycle and Three Wheeler Technician
- New fish hatchery technical knowledge
- New painting practice
- New technical training for breeding plants and seeds
- Packaging and Advertising
- Permanent training in odor avoidance
- Practice in using semi-automatic machines for mixing mushroom cultivation media and filling cultivation bags
- Practicing techniques and new techniques related to garment design and cutting
- Production and preservation of yogurt.
- Professional training
- Providing training for fish population detection
- Refresher courses
- Related to Cake, Pastry & Bakery products
- Seed propagation that gives higher yields
- Sewing courses
- Technical Training in Floriculture
- Telephone Repair Training
- To be aware of the use of tunnels and pest control
- Training and technical knowledge required to prepare seed nurseries.
- Training courses
- Training for labeling and packaging
- Training for poster production
- Training in cinnamon crushing and acquiring technical knowledge for cinnamon related products.
- Training in ground flower industry
- Training in mechanical and new food production
- Training in modern methods of animal husbandry and disease prevention and control
- Training in new artistic designs and styles
- Training in new fashion carpet design and value added products
- Training in sewing mosquito nets
- Training in the use of modern technology machines
- Training in the use of stick manufacturing machines
- Training in using the ZOJI Industrial Machine
- Training in Value Addition Manufacturing
- Training of guides
- Training on Gems
- Training on new foods
- Training on Pan and Wetakeiya products
- Training on soap making
- Training on solar panels
- Use of modern equipment
- Use of modern methods and technical knowledge

Source: Planning Division of each District Secretariat, 2023

Fulfilling the training needs can significantly improve livelihood opportunities in the Western Province. Provincial Council initiatives, industry partnerships, and educational institutions play crucial roles in developing and delivering these training programmes.

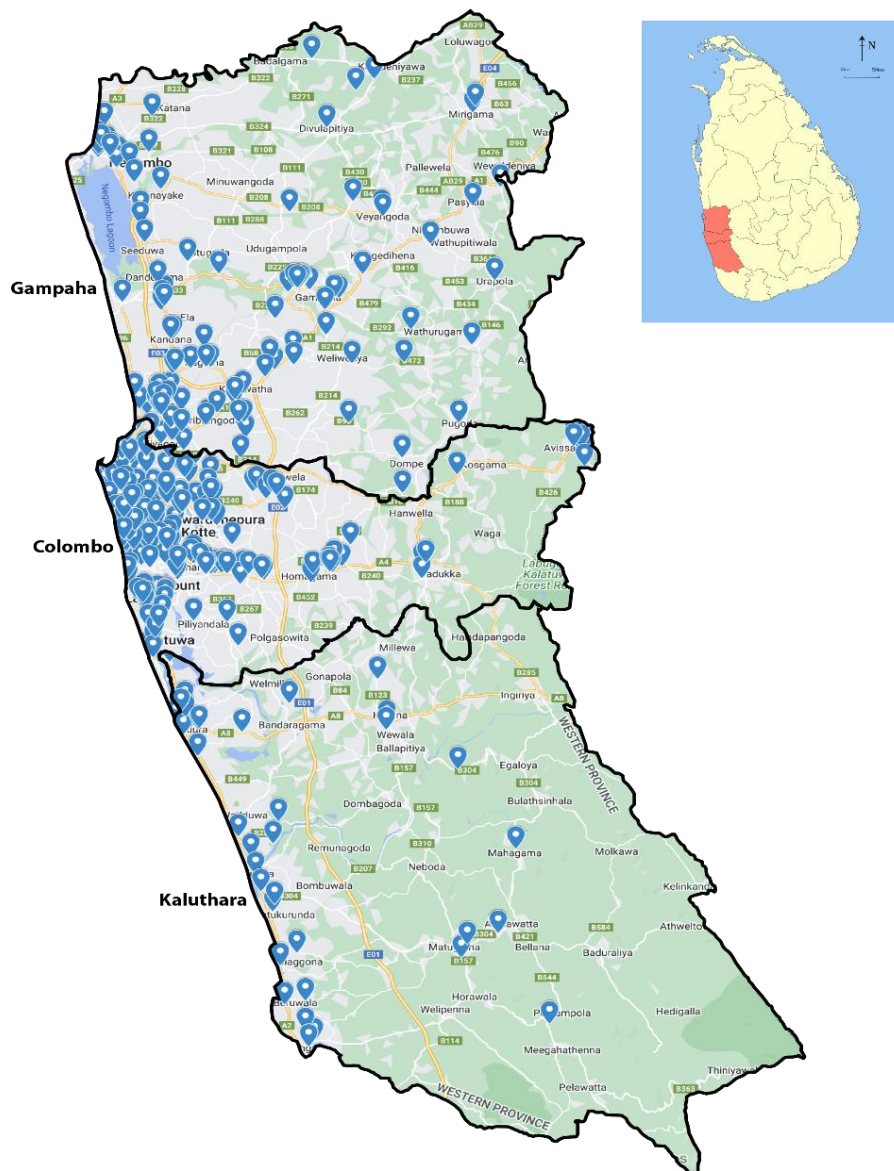
Chapter 4: Supply of Skilled Labour to the Labour Market – Training Profile

4.0 Overview

This chapter examines on the skill supply to the labour market in the Western Province. The youth dropping out of the education system and school leavers at G.C.E. (O/L) and G.C.E. (A/L) enter the labour market either directly or through Technical and Vocational Education and Training (TVET) institutions with acquired employable skills, seeking employment in the labour market.

4.1 TVET institute Network

Geographical Distribution of TVET Institutes in Western Province



Source: TVEC Information System

Western Province is located in the southwest of Sri Lanka. It covers an area of 3,684 square kilometers and is divided into three districts: Colombo, Gampaha, and Kalutara. As of December 31, 2023, the Western Province had 772 active TVEC-registered training centers. Out of the total number of institutions, 173 were public and non-governmental organizations, while 599 were private sector training institutes.

The Department of Technical Education and Training (DTET) operates three (03) technical colleges in Colombo and one each in Gampaha and Kalutara districts. The Vocational Training Authority (VTA) has 14 training centers in Colombo, ten in Kalutara, and fourteen in Gampaha. The National Apprentice and Industrial Training Authority (NAITA) operates four training centers in Colombo, three in Gampaha, and two in Kalutara. The National Youth Services Council (NYSC) runs four training centers in Colombo and three each in Gampaha and Kalutara districts.

Table 4. 1: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Colombo District in 2023

DS Division	Population of 15-29 Age Group in DS Division	CGTTI	DTET	NAITA	VTA	NYSC	SLITHM	GJRTI	Public Other	Private & NGO	Total
Colombo	85,619		2				1		14	94	111
Dehiwala	23,278					1				26	27
Homagama	57,852		1		1				10	6	18
Kaduwela	61,015							1	7	33	41
Kesbewa	61,639				1				2	13	16
Kolonnawa	46,848			2	3	1			3	11	20
Kotte	27,534				1				3	50	54
Maharagama	52,317				3	1			4	42	50
Moratuwa	45,733	1		1					5	11	18
Padukka	14,815				1					2	3
Ratmalana	25,330				1	1			8	20	30
Seethawaka	28,762				1				3	5	9
Thimbirigasyaya	62,585			1	2				15	74	92
Total	593,327	1	3	4	14	4	1	1	74	387	489

Source: TVEC Information System, Department of Census and Statistics

Table 4.1 depicts the geographical distribution of training institutes in Colombo district. The Colombo DS division has 111 training centers, followed by Thimbirigasyaya DS division, which has 92. Kotte, Maharagama, and Kaduwela DS divisions each have 54, 50, and 41 training centers, while Padukka and Seethawaka DS divisions have 3 and 9, respectively.

Each Divisional Secretariat in the Colombo district operates at least one public sector training center. Colombo district has 593,327 youths aged 15 to 29, with the lowest number (14,815) in Padukka DS division and highest number (85,619) in Colombo DS division.

Table 4. 2: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Gampaha District in 2023

DS Division	Population of 15-29 Age Group in DS Division	DTET	NAITA	VTA	NYSC	Public Other	Private & NGO	Total
Attanagalla	41,927			2		1	8	11
Biyagama	49,728				1		12	13
Divulapitiya	33,979			1		2	3	6
Dompe	35,497			2	1	1	3	7
Gampaha	44,367	1	2	2		2	32	39
Jaela	50,067					2	23	25
Katana	73,338		1	1		2	9	13
Kelaniya	38,124			1		1	19	21
Mahara	48,594			1		3	9	13
Meerigama	37,598				1	3	3	7
Minuwangoda	40,818			2		1	6	9
Negombo	36,445					1	23	24
Wattala	44,267			2		2	23	27
Total	574,748	1	3	14	3	21	173	215

Source: TVEC Information System, Department of Census and Statistics

Table 4.2 depicts the geographic distribution of training institutes in each division of Gampaha district. 39 centers operate in the Gampaha DS division, followed by 27 centers in Wattala DS division, 25 in Ja-Ela DS division, 24 in Negombo DS division, and 21 in Kelaniya DS division. The numbers are lower in the Divulapitiya DS division, Dompe DS division, and Meerigama DS division. In addition, Gampaha district has 173 private training centers out of a total of 215 training centers representing 80% of the total number of training centers in Gampaha district.

It is noteworthy that each divisional secretariat in the Gampaha district has at least one public sector training center. The lowest number in Divulapitiya DS division (33,979) and the highest number in Katana DS division (73,338).

Table 4. 3: Geographical Distribution of the Training Institutes in Divisional Secretariat Divisions in Kalutara District in 2023

DS Division	Population of 15-29 Age Group in DS Division	DTET	NAITA	VTA	NYSC	Public Other	Private & NGO	Total
Agalawatta	8,105			2	1	2		5
Bandaragama	24,894						1	1
Beruwala	40,362		1	1			8	10
Bulathsinhala	14,603			1		1	1	3
Dodangoda	13,842					1	1	2

DS Division	Population of 15-29 Age Group in DS Division	DTET	NAITA	VTA	NYSC	Public Other	Private & NGO	Total
Horana	25,751		1	2		2	2	7
Ingiriya	12,884						1	1
Kalutara	37,172	1		2		2	6	11
Madurawala	7,631				1			1
Mathugama	18,276					1	1	2
Panadura	41,984			1	1	4	18	24
Walallawita	12,112			1				1
Baduraliya	11,513							-
Millaniya	11,496							-
Total	280,624	1	2	10	3	13	39	68

Source: TVEC Information System, Department of Census and Statistics

Table 4.3 depicts the geographical distribution of training institutes in the Kalutara district's DS divisions. The Panadura DS division has 24 training centers, followed by 11 in Kalutara, 10 in Beruwala, and 7 in Horana. There are fewer training centers in other DS divisions. The DS divisions of Walallawita, Madurawala, Ingiriya, and Bandaragama each have a single training center. Bandaragama and Ingiriya DS divisions lack a public sector training institute. Although Baduraliya and Millaniya DS divisions have 11,513 and 11,496 youths aged 15 to 29, respectively, there is no training center in those DS divisions

Table 4. 4: Dispersion of Schools and Vocational Training Centers in Colombo District

DS Division	No. of Schools	No. of Vocational Training Centers
Colombo	69	111
Dehiwala	15	27
Homagama	39	18
Kaduwela	32	41
Kesbawa	26	16
Kolonnawa	18	20
Kotte	16	54
Maharagama	22	50
Moratuwa	27	18
Padukka	23	3
Ratmalana	18	30
Seethawaka	37	9
Thimbirigasyaya	54	92
Total	396	489

Source: TVEC Information System. Statistics Division, Ministry of Education

According to Table 4.4, the Colombo district has 396 schools and 489 vocational training centres. The city of Colombo (Colombo and Thimbirigasyaya DS divisions) has the most schools (123), while Dehiwala DS division has the fewest (15). Colombo DS division has the most vocational training centers (111), while Padukka DS division has the fewest (03), despite the fact that it has 23 schools.

Table 4. 5: Dispersion of Schools and Vocational Training Centers in Gampaha District

DS Division	No. of Schools	No. of Vocational Training Centers
Attanagalla	49	11
Biyagama	27	13
Divulapitiya	52	6
Dompe	47	7
Gampaha	48	39
Jaela	37	25
Katana	44	13
Kelaniya	25	21
Mahara	40	13
Meerigama	53	7
Minuwangoda	54	9
Negombo	32	24
Wattala	27	27
Total	535	215

Source: TVEC Information System. Statistics Division, Ministry of Education

Table 4.5 depicts the geographic distribution of schools and vocational training centers in each DS division of the Gampaha district. Minuwangoda DS has the most schools (54), while Kelaniya DS has the fewest (25). The Minuwangoda DS division has only nine vocational training centers. The Divulapitiya DS division has the fewest vocational training centers (06), despite having 52 schools.

Table 4. 6: Dispersion of Schools and Vocational Training Centers in Kalutara District

DS Division	No. of Schools	No. of Vocational Training Centers
Agalawatta	20	5
Bandaragama	22	1
Beruwala	50	10
Bulathsinhala	32	3
Dodangoda	25	2
Horana	31	7
Ingiriya	22	1
Kalutara	34	11
Madurawala	12	1
Mathugama	40	2
Panadura	41	24
Walallawita	31	1
Baduraliya	38	-
Millaniya	19	-
Total	417	68

Source: TVEC Information System. Statistics Division, Ministry of Education

According to table 4.6, the Beruwala DS division operates 50 schools and 10 vocational training centers. When compared to the number of schools in each DS division of Kalutara district, there are significantly fewer vocational training centers in Walallawita, Mathugama, Madurawala, Ingiriya, Dodangoda, Bulathsinhala, and Bandaragama. It is worth noting that, despite having 38 and 19 schools, respectively, the Baduraliya and Millaniya DS divisions do not have a vocational training center.

4.2 The Mix of NVQ Courses Available in Districts

4.2.1 Colombo District

Table 4.7 shows that 736 NVQ courses have been enrolled in the Colombo district by TVEC-registered training institutes, with VTA enrolling students for 128 NVQ courses in 2023 and private sector training institutes enrolling 315. The manufacturing sector has the most enrolled courses (147), with 35 offered by private sector institutes, 36 from VTA, 22 from DTET, 11 from NYSC, 10 from NAITA, and seven (07) from CGTTI.

There are 83 courses related to real estate, renting, and business activities (ICT-related sector), with 20 offered by VTA, 18 by NYSC and the private sector, and 11 by DTET. There are 75 construction-related courses, 25 from private training institutes, 21 from DTET, and 12 from VTA. In addition, there are 36 hotel and tourism-related courses, 19 from the private sector, 10 from VTA and three from SLITHM (Please see the appendix for more details).

Table 4. 7: NVQ Courses enrolled students in Colombo district in 2023

Industry Sector	CGTTI	DTET	NAITA	VTA	NYSC	SLITHM	GJRTI	Other Government	Private and NGO	Total
Manufacturing	7	22	10	36	11		3	23	35	147
Construction		21	3	12	5			9	25	75
Hotel & Restaurants				10	2	3		2	19	36
Real Estate, Renting and Business Activities		11	6	20	18	1		9	18	83
Other Industry Sectors	13	30	8	50	22	-	-	54	218	395
Grand Total	20	84	27	128	58	4	3	97	315	736

Source: TVEC Information Systems

Table 4. 8: NVQ Courses for which no enrollment has been reported in 2023 in Colombo District

Industry Sector	CGTTI	DTET	NAITA	NYSC	VTA	Public-Other	Private & NGO	Total
Manufacturing	6	6	2	2	22	6	21	65
Construction		8			10	3	23	44
Hotel & Restaurants					2		14	16
Real Estate, Renting and Business Activities		4	2	7	9	5	16	43
Other Industry Sectors	10	8	-	3	23	24	85	153
Grand Total	16	26	4	12	66	38	159	321

Source: TVEC Information Systems

4.2.2 Gampaha District

According to Table 4.9, it shows that there are 369 NVQ courses being offered across the Gampaha district by training institutes registered with TVEC as of 2023. The VTA enrolled students in 82 NVQ courses, while private sector training institutes enrolled students in 185 NVQ courses. The manufacturing sector has the most number of courses enrolled (88), with 33 courses being provided by private sector institutes, 21 from VTA, eight (08) from DTET, four (04) from NYSC, and 22 from other government-run institutes. A total of 55 courses are associated with real estate, renting, and business activities (ICT related sector), with 13 courses being offered by VTA, four (04) from NYSC and DTET, and 27 from private sector institutes. There are 15 courses related to the construction sector, with six (06) from DTET, four (04) from VTA, three (03) from other government institutes, and two (02) from the private sector. Further, there are 18 courses related to the hotel and tourism sector, with nine (09) from the private sector, eight (08) from VTA, and the rest from other government institutes (*Please see the appendix for more details*).

Table 4. 9: NVQ Courses enrolled students in Gampaha district in 2023

Industry Sector	DTET	NAITA	VTA	NYSC	Other Government	Private and NGO	Total
Manufacturing	8		21	4	22	33	88
Construction	6		4		3	2	15
Hotel & Restaurants			8		1	9	18
Real Estate, Renting and Business Activities	4	1	13	4	6	27	55
Other Industry Sectors	11	-	36	5	27	114	293
Grand Total	29	1	82	13	59	185	369

Source: TVEC Information Systems

Table 4. 10: NVQ Courses for which no enrollment has been reported in 2023 in Gampaha District

Industry Sector	DTET	NAITA	NYSC	VTA	Public-Other	Private & NGO	Total
Manufacturing	3		2	16	10	20	51
Construction	3			1		8	12
Hotel & Restaurants				2	1	2	5
Real Estate, Renting and Business Activities	1			4	6	19	30
Other Industry Sectors	3		1	14	19	81	118
Grand Total	9		3	33	33	111	189

Source: TVEC Information Systems

4.2.3 Kalutara District

According to Table 4.11, there are 181 NVQ courses being offered within Colombo district by training institutes registered with TVEC as of 2023. The VTA has enrolled students in 61 NVQ courses, while private sector training institutes enrolled students for 53 courses. The manufacturing sector has the most courses enrolled in (44), with 18 courses being offered by VTA, four (04) from DTET and NYSC, one (01) from NAITA, three (03) from other government-run institutes, and 14 from private sector training institutes.

A total of 30 courses are related to the real estate, renting and business activities sector (ICT related sector) of which 11 courses from VTA, seven (07) courses from DTET, six (06) courses from NYSC, one (01) course from NAITA and other government institute each, and four (04) courses from private sector. There are 14 courses related to the construction sector of which seven (07) courses from DTET, three (03) from VTA, one (01) course from NYSC and other government institute each, and two (02) courses from the private sector. Also, the number of courses related to the hotel and tourism sector is 13, out of which six (06) courses are from VTA and private sector each, and one (01) course from NYSC (*Please see the appendix for more details*).

Table 4. 11: NVQ Courses, enrolled students in Kalutara district in 2023

Industry Sector	DTET	NAITA	VTA	NYSC	Other Government	Private and NGO	Total
Manufacturing	4	1	18	4	3	14	44
Construction	7		3	1	1	2	14
Hotel & Restaurants			6	1		6	13
Real Estate, Renting and Business Activities	7	1	11	6	1	4	30
Other Industry Sectors	12	1	23	10	7	27	80
Grand Total	30	3	61	22	12	53	181

Source: TVEC Information Systems

Table 4. 12: NVQ Courses for which no enrollment has been reported in 2023 in Kalutara District

Industry Sector	DTET	NAITA	NYSC	VTA	Public-Other	Private & NGO	Total
Manufacturing	1			11	2	3	17
Construction	4		1	3		1	9
Hotel & Restaurants				3		4	7
Real Estate, Renting and Business Activities	2	2	2	5		5	16
Other Industry Sectors	4			7	7	5	23
Grand Total	11	2	3	29	9	18	72

Source: TVEC Information Systems

4.3 Annual Training Output from TVET Providers
Table 4. 13: Training Performance by Industry Sector and Year

District	Industry Sector	Training Performance by Year					
		2020		2021		2022	
		TR	TC	TR	TC	TR	TC
Colombo	Accommodation and Food Service Activities	1,780	1,264	982	553	1,453	881
	Construction	3,480	1,589	2,663	1,043	3,124	1,481
	Information Communication Technology	8,007	4,730	9,812	6,665	8,158	4,664
	Manufacturing	3,488	1,710	3,231	2,006	4,332	2,659
	Other Sectors	17,956	11,016	17,912	10,193	29,537	16,952
Colombo District Total		34,711	20,309	34,600	20,460	46,604	26,637
Gampaha	Accommodation and Food Service Activities	417	397	401	193	759	566
	Construction	880	553	896	681	801	692
	Information Communication Technology	925	421	1,516	942	1,674	866
	Manufacturing	874	715	837	582	1,168	784
	Other Sectors	3,469	1,769	4,492	2,721	6,113	3,425
Gampaha District Total		6,565	3,855	8,142	5,119	10,515	6,333
Kalutara	Accommodation and Food Service Activities	209	165	230	159	508	310
	Construction	587	319	586	199	440	317
	Information Communication Technology	747	316	973	548	1,104	569
	Manufacturing	359	237	592	288	732	435
	Other Sectors	1,881	813	2,705	1,346	3,268	1,222
Kalutara District Total		3,783	1,850	5,086	2,540	6,052	2,853
Western Province Total		45,059	26,014	47,828	28,119	63,171	35,823
Western province as a % of Grand Total		36%	35%	33%	39%	38%	37%
Other Provinces Total		79,360	48,914	97,091	44,684	103,247	61,148
Grand Total		124,419	74,928	144,919	72,803	166,418	96,971

Source: LMI Bulletin, TVEC, TR-Total Recruited, TC-Total Completed

Table 4.13 displays the training performance of Western provinces by industry sector and year. It clearly shows that total recruitment increased gradually between 2020 and 2022. In 2022, there were 63,171 total enrolments (38% of the total number of enrolments in the country), and 35,823 students graduated (37% of the total completion in the country in 2022).

Table 4. 14: Percentage Share of the Training Performance by District Province and Year

District / Province	Percentage Share of Training Performance by Year					
	2020		2021		2022	
	TR	TC	TR	TC	TR	TC
Colombo	28%	27%	24%	28%	28%	27%
Gampaha	5%	5%	6%	7%	6%	7%
Kalutara	3%	2%	4%	3%	4%	3%
Western Province	36%	35%	33%	39%	38%	37%
Other Provinces	64%	65%	67%	61%	62%	63%
All Island	100%	100%	100%	100%	100%	100%

Source: LMI Bulletin, TVEC

According to Table 4.14, the Colombo district has increased its percentage share of overall training performance by about one-fourth each year. This represents a significant increase when compared to the other two districts in the Western Province. From 2020 to 2022, the Western Province increased its overall completion rate of vocational training by 35%, 39%, and 37% respectively.

Table 4. 15: Recruitments and Completions in Training Providers in Western Province by Gender in 2022

Institute		No. Recruited			No. Completed		
		Male	Female	Total	Male	Female	Total
CGTTI	No.	1,695	38	1,733	833	21	854
	%	98%	2%		98%	2%	
DTET	No.	2,623	1,065	3,688	1,061	551	1,612
	%	71%	29%		66%	34%	
NAITA	No.	3,824	1,732	5,556	2,032	583	2,615
	%	69%	31%		78%	22%	
NYSC	No.	4,185	3,802	7,987	703	411	1,114
	%	52%	48%		63%	37%	
VTA	No.	5,493	2,828	8,321	2,635	1,805	4,440
	%	66%	34%		59%	41%	
SLITA	No.	657	481	1,138	640	481	1,121
	%	58%	42%		57%	43%	
SLITHM	No.	249	51	300	246	49	295
	%	83%	17%		83%	17%	
UNIVOTEC	No.	609	562	1,171	217	145	362
	%	52%	48%		60%	40%	
Other Government	No.	6,174	5,278	11,452	4,014	3,468	7,482
	%	54%	46%		54%	46%	
Private& NGO	No.	8,704	13,121	21,825	6,735	9,193	15,928
	%	40%	60%		42%	58%	
Total in Western Province		34,213	28,958	63,171	19,116	16,707	35,823

Source: LMI Bulletin, TVEC

According to table 4.15, the Vocational Training Authority (VTA) possessed the highest number of enrollments and completions in the public sector in 2022. It was 8,321 and 4,440, respectively. The NYSC recorded 7,987 recruitments, the NAITA recorded 5,556, and the DTET recorded 3,668. In 2022, private sector training institutes in Western Province enrolled 21,825 students for training. In terms of gender participation, all institutes, with the exception of private sector training institutes, reported higher male participation in 2022.

Table 4. 16: Recruitments and Completions in Western Province by Training Provider and District in 2022

Institute	Colombo		Gampaha		Kalutara		Western Province	
	No. Recruited	No. Completed	No. Recruited	No. Completed	No. Recruited	No. Completed	No. Recruited	No. Completed
CGTTI	1,733	854					1,733	854
DTET	2,442	954	707	352	539	306	3,688	1,612
NAITA	3,289	1,789	1,371	604	896	222	5,556	2,615
NYSC	5,810	893	1,002	157	1,175	64	7,987	1,114
VTA	4,743	1,972	1,963	1,350	1,615	1,118	8,321	4,440
SLITA	1,138	1,121					1,138	1,121
SLITHM	300	295					300	295
UNIVOTEC	1,171	362					1,171	362
Other Government	9,394	6,390	1,135	656	923	436	11,452	7,482
Private& NGO	16,584	12,007	4,337	3,214	904	707	21,825	15,928
Total	46,604	26,637	10,515	6,333	6,052	2,853	63,171	35,823

Source: LMI Bulletin, TVEC

Table 4.16 depicts the total number of recruitments and completions in Western Province by training provider and district. In 2022, NYSC had the highest number of recruitments, while SLITHM had the lowest in Colombo district. In Gampaha and Kalutara districts in 2022, VTA had the most recruitments and DTET had the fewest.

Table 4. 17: Top 25 Course Completion in Western Province in Construction Sector in 2022.

Rank	Course Name	No. Completed
1	Electrician	495
2	Aluminum Fabricator	198
3	Plumber	130
4	Construction Equipment Mechanic	113
5	National Certificate in Engineering Draughtsmanship	111
6	National Certificate - Landscaping Technician	106
7	Civil Engineering Building Construction	104
8	Certificate for Quantity Survey Assistants	66
9	Power Engineering	62
10	Special Professional Course for Valuation Officers (Quantity Surveying)	59
11	Diploma in Quantity Surveying	57
12	National Certificate for Construction Site Supervisors	55
13	Electronics & Communication Engineering	54
14	Certificate for Construction Equipment Technician	53
15	Power Electrical Technician (from previous year intake)	45
16	Construction Site Supervisors	45
17	Basic Certificate in Auto CAD	41

Rank	Course Name	No. Completed
18	Electrician (Industrial)	39
19	Bachelor of Technology in Quantity Surveying	37
20	Bachelor of Technology in Construction Technology & Resource Management	34
21	Bachelor of Technology in Building Services Technology	33
22	Water & Environment Engineering	32
23	Highway & Railway Engineering	31
24	Industrial Electronic Technician	30
25	Diploma in Architectural Studies	29

Source: LMI Bulletin, TVEC

Table 4.17 lists the top 25 courses in the construction sector. It shows that the electrician course had the most course completions (495). In 2022, aluminum fabricators, plumbers, construction site supervisors, and architects will be among the Western province's top five labour supplies.

Table 4. 18: Top 25 Course Completion in Western Province in ICT Sector in 2022

Rank	Course Name	No. Completed
1	Information And Communication Technology Technician	786
2	Computer Applications Assistant	683
3	Certificate in Computer Science	375
4	Preparatory Course for Cisco Certified Entry Networking Technician	363
5	Preparatory Course for Cisco Certified Network Associate	363
6	Preparatory Course for Cisco Certified Network Professional	350
7	Diploma in Multi Media	185
8	Certificate in Software Engineering	176
9	Diploma in Software Engineering	158
10	National Certificate - Computer Hardware Technician NVQ IV with CISCO IT Essential/ A Plus	146
11	Certificate in CostX Software Training	139
12	Basic Certificate in Corel Draw	115
13	Graduate Diploma in Software Engineering	108
14	Certificate in Network Engineering	105
15	Computer Hardware Technician	100
16	Advance Diploma in Advertising and Multimedia	95
17	Certificate in Practical Digital Marketing	93
18	PC Based Application (Part Time)	90
19	Certificate in Workplace Essentials (Computing and Communication)	79
20	Diploma in Computer System Design	76
21	Certificate Course in Personal Computer Based Application Packages	68
22	Diploma in Network Engineering	57
23	Computer Hardware and Network Technician	51
24	Preparatory Course for Ethical Hacking	46
25	Certificate in Cyber security	39

Source: LMI Bulletin, TVEC

Table 4.18 lists the top 25 courses in the ICT sector. It indicates that the information and communication technology technician course had the highest number of course completions (786) in 2022. In 2022, the top five (5) labour supplies in the Western province were Computer Application Assistant, Certificate in Computer Science, Cisco Certified Entry Networking Technician, and Cisco Certified Network Associate.

Table 4. 19: Top 25 Course Completion in Western Province in Manufacturing Sector in 2022

Rank	Course Name	No. Completed
1	Diploma in Textile & Apparel Technology (P/T)	202
2	Welder	152
3	Certificate in Machinist	151
4	Certificate for Tailor	143
5	Diploma in Dress Making	112
6	Certificate in Dress Making	112
7	Certificate in Electronic Music Production (Basic)	88
8	Certificate in Clothing Technology	81
9	Certificate in Textile Technology (P/T)	81
10	National Certificate - ISM Operator	74
11	Gemology	74
12	Advanced Certificate in Textile & Apparel Technology	73
13	Certificate in Pattern Cutting, Grading & Styling Development (P/T)	68
14	Associate Diploma in Clothing Manufacturing	66
15	Advanced Diploma in Fashion Design & Product Development	56
16	Bachelor of Technology in Food Process Technology	55
17	National Certificate - Pattern Maker	55
18	National Certificate - Wood Craftsman (Furniture)	55
19	National Certificate in Engineering Craft Practice (Gas & Arc Welder)	53
20	National Certificate - Tailor (Gent Garment)	52
21	National Certificate - Dress Maker	51
22	Certificate for Wood Craftsman - Building (Skill Upgrading)	45
23	Certificate in Garment Production Management (P/T)	45
24	Machinery Fitter (Millwright) (from previous year intake)	45
25	Certificate in Garment Production Management	42

Source: LMI Bulletin, TVEC

Table 4.19 lists the top 25 courses in the manufacturing sector. It shows that the Diploma in Textile & Apparel Technology (P/T) course recorded the highest number of course completions (202) in 2022. Welder, Machinist, Tailor, Dress Maker were among the top five (05) labour supplies in the Western province in 2022.

Table 4. 20: Top 20 Course Completion in Western Province in Accommodation and Food Services Activities Sector in 2022

Rank	Course Name	No. Completed
1	Cook	606
2	Baker	264
3	Certificate in International Cookery (Basic Vocational Skills)	223

Rank	Course Name	No. Completed
4	Certificate Level - Restaurant & Bar Service	103
5	Food and Beverage Services	90
6	Certificate in Pastry, Bakery & Desserts (Basic Vocational Skills)	86
7	Certificate for Professional Cookery	80
8	Certificate in pastry and Bakery	46
9	Diploma in Hospitality Management	40
10	Certificate Level - Hotel Reception	37
11	Certificate Level - Housekeeping	28
12	Certificate in Food and Beverage Service	18
13	Travel & Tour Management	18
14	Waiter/Steward	16
15	Event Management	14
16	Certificate in Cookery/ Food Production	11
17	Room Attendant	11
18	Advanced Level - Accommodation Operations	10
19	Certificate in Basic Bakery Products	5
20	Basic Certificate in Hotel Front Office	5

Source: LMI Bulletin, TVEC

Table 4.20 lists the top 20 courses in the Accommodation and Food Services Activities sector. It indicates that the Cook course recorded the highest number of course completions (606) in 2022. Baker, International Cookery, Restaurant and Bar Service and Food & Beverage were among the top (05) labour supplies in the Western province in 2022.

4.4 Apprenticeship Training

The National Apprenticeship and Industrial Training Authority (NAITA) provides this training as part of the Apprenticeship Scheme. Over 150 craft training courses are available in 22 professional areas, and students may apply to any professional training field within this program based on their level of education. Enterprise-based apprenticeship training is also highlighted in the Western province. The information provided from the NAITA is given in the Table 4.21

Table 4. 21: Recruitment & Completion for Apprenticeship Training in Western Province by Year

Training Mode	Training Type	Training Recruitment			Training Completion		
		2020	2021	2022	2020	2021	2022
NVQ	Enterprise Based NVQ	1,346	857	3,018	1,559	770	536
Non-NVQ	Enterprise Based Craft Level	297	252	474	462	425	462
	Enterprise Based Special		365	36	11	337	35
	Enterprise Based Situational Level	44	81	201	125	54	56
Total		1,687	1,555	3,729	2,157	1,586	1,089

Source: LMI Bulletin, TVEC

Table 4.21 depicts the recruitment and completion of apprenticeship training in the Western Province by year and training type. From 2020 to 2022, the enterprise-based NVQ training category of apprenticeships in the Western Province shows the most recruitment. In 2022, there were 3,729 apprenticeship training recruitments in the Western province (81% NVQ) and 711 non-NVQ recruitments (19%).

Table 4. 22: Recruitment & Completion for Apprenticeship Training by Certificate Type, and district from 2020 to 2022

Province	District	Certificate Type	No. Recruited			No. Completed		
			2020	2021	2022	2020	2021	2022
Western	Colombo	NVQ	704	347	1,563	970	550	370
		Non NVQ	92	92	346	262	292	383
		Total	796	439	1,909	1,232	842	753
	Gampaha	NVQ	400	590	981	430	407	138
		Non NVQ	190	85	121	255	143	72
		Total	590	675	1,102	685	550	210
	Kalutara	NVQ	242	284	510	159	150	63
		Non NVQ	59	157	208	81	44	63
		Total	301	441	718	240	194	126
Western Province Total and % As a Grand Total		Total	1,687	1,555	3,729	2,157	1,586	1,089
		(%)	16%	11%	20%	19%	14%	12%
Other Provinces		NVQ	7,388	9,109	10,920	6,524	7,465	5,127
		Non NVQ	1,732	3,315	3,788	2,961	1,953	2,551
		Total	9,120	12,424	14,708	9,485	9,418	7,678
Grand Total		NVQ	8,734	10,330	13,974	8,083	8,572	5,698
		Non NVQ	2,073	3,649	4,463	3,559	2,432	3,069
		Total	10,807	13,979	18,437	11,642	11,004	8,767

Source: LMI Bulletin, TVEC

Table 4.22 depicts the recruitments and completions for apprenticeship training by district and year in Western Province. The Colombo District has been reported to have the highest number of completions and recruitments in the Western Province in 2022. The Western province contributed approximately 20% of the country's apprenticeship training in 2022.

Table 4. 23: Top 10 Occupations with the highest supply for Apprenticeship Training in Manufacturing Sector in the Western province in 2022

Occupation (Course Name)	Rank
Tailor	1
Handicraft Maker (Coir/ Palmyra/ Jute/ Pulp/ Bamboo Sticks)	2
Welder	3
Wood Craftsman (Furniture)	4
Electric Arc Welder/Fabricator	5
Industrial Sewing Machine Operator	6
Machinist (General)	7
Aluminum Fabricator	8
Shoe Maker	9
Grass Cutter Machine Operator	10

Source: LMI Bulletin, TVEC

Table 4.23 lists the top ten occupations with the highest supply through apprenticeship training in the Western Province's manufacturing sector in 2022. Tailor is the occupation with the highest supply to the labour market in the Western Province's manufacturing sector through apprenticeship training in 2022.

Table 4. 24: Top 10 occupations with the highest supply for Apprenticeship Training in Construction Sector in the Western province in 2022

Occupation	Rank
Electrician	1
Construction Craftsman (Masonry)	2
Plumber	3
Construction Equipment Mechanic	4
Tiler	5
Cement Block Maker	6
Cane Product Maker	7
Electrician (Industrial)	8
Construction Craftsman (Carpenter)	9
Wood Craftsman (Buildings)	10

Source: LMI Bulletin, TVEC

Table 4.24 lists the top ten occupations with the highest supply of apprenticeship training in the Western Province's construction sector in 2022. Electrician is the occupation with the highest supply to the labour market in 2022 in the construction sector through apprenticeship training.

Table 4. 25: Top 10 occupations with the highest supply for Apprenticeship Training in Accommodation and food service activities Sector in the Western province in 2022

Occupation	Rank
Cook	1
Waiter/Steward	2
Room Attendant	3
Waiter Assistant (Health Sector)	4
Baker	5
Receptionist	6
Waiter	7
Cook Assistant (Health Sector)	8
Room Boy/ Room Maid	9
Bartender	10

Source: LMI Bulletin, TVEC

The top 10 occupations with the highest supply through apprenticeship training in the Accommodation and food service activities sector in the Western Province in 2022 are shown in Table 4.25. In the Western Province, cook is the occupation that recorded the highest supply to the labour market in 2022 under the Accommodation and food service activities sector through apprenticeship training.

4.5 Availability of Teachers and Assessors in Western Province

4.5.1: Availability of Teachers/Trainers in Vocational Training Centers in Western Province – 2023

Table 4.26 shows that there are 1,075 teachers involved in vocational training in all training centers in the Western province registered at TVEC as of December 31, 2022. There are 629 teachers in the Colombo district, 330 in Gampaha, and 116 in Kalutara. Western Province has the teacher-to-students ratio of around 55 in TVET, with Gampaha District having the lowest (29). The recommended teacher-to-students ratio for craft level vocational training is approximately 17. Higher enrollment, as well as enrollment in more courses/batches with fewer teachers, and resignations will result in correspondingly higher teacher-to-students ratios (The number of students enrolled in each district is an annual number).

Table 4. 26: Number of Vocational Teachers by District in 2022

District/ Province	No. of Teachers	No. of Students (CBT)	Student/Teacher Ratio
Colombo	629	44,695	71
Gampaha	330	9,413	29
Kalutara	116	5,334	46
Western Province	1,075	59,442	55

Source: TVEC Information System, CBT – Competency Based Training

4.5.2: Availability of NVQ Assessors

Students are assessed by TVEC-registered assessors for their respective occupations (levels 1-4) or fields of study (levels 5&6) who had no involvement in the students' training. The TVEC's assessor appointment online system selects two registered assessors automatically for a given occupation or occupational area. TVEC has also implemented a code of ethics for assessors in order to ensure fair and qualitative candidate assessment.

All the NCSs that have been developed by TVEC are 348 as of 31st of December 2023. TVEC has registered 3,180 assessors for 7,556 trades (one assessor can be registered for more than one trade). As per the table 4.27, 673 of assessors have been registered from Colombo district, 366 of assessors has been registered from Gampaha district, and 260 of assessors have been registered from Kalutara district by the end of 2023. 41% of the total number of assessors in the country is representing the Western province.

Table 4. 27: Number of Assessors by District and Province in 2023

Province	District	No. of Assessors	Percentage
Western Province	Colombo	673	21%
	Gampaha	366	12%
	Kalutara	260	8%
Other Provinces	Other Districts	1,881	59%
Total		3,180	100%

Source: TVEC Information System

4.6 Extent of implementation of NVQ Framework in the Western province

4.6.1: NVQ Certified Skilled Persons in the Province

As per table 4.28, the number of NVQ certificates issued through center-based training (CBT) over the previous five years is presented. It clearly shows that issuing NVQ certificates in years 2020, 2021, and 2022 has reduced when compared to the years 2019 and 2023. The main reason for that was the COVID-19 epidemic in the country. In 2023, 16, 441 NVQ certificates have been issued for NVQ courses completed in the Colombo district. That number for the Western province is 23,369 which is the highest number of NVQ certificates issued for each province (it is about 31% of the total number of NVQ certificates issued in the country in 2023).

Table 4. 28: Issuing of NVQ Certificates by Year and District (Institutional Training – CBT)

Province	District	No. of NVQ Certificate by Year				
		2019	2020	2021	2022	2023
Western	Colombo	9,901	5,883	6,222	12,032	16,441
	Gampaha	4,496	2,575	2,360	5,077	6,318
	Kalutara	3,279	1,788	1,345	2,535	3,610
Western Province Total		17,676	10,246	9,927	19,644	26,369
Other Provinces		47,773	28,479	26,831	45,397	57,758
All Island		65,449	38,725	36,758	65,041	84,127

Source: TVEC Information Systems, CBT – Competency Based Training

Table 4. 29: NVQ qualified Skilled Personnel in the Colombo District by Occupation and Training Provider for Selected Industry Sectors in 2023

Industry Sector	CGTTI	DTET	NAITA	NYSC	VTA	Public Other	Private	Total
Construction		459	91	44	102	79	71	846
Hotel & Restaurants				66	442	22	510	1,040
ICT		213	232	706	458	104	96	1,809
Manufacturing	529	241	369	494	636	268	848	3,385
Other Sectors Total	714	805	363	515	1,032	2,387	3,545	9,361
Colombo District Total	1,243	1,718	1,055	1,825	2,670	2,860	5,070	16,441
% As Colombo District Total	8%	10%	6%	11%	16%	17%	31%	100%

Source: TVEC Information Systems

Table 4.29 shows that 16,441 NVQ certificates have been issued in 119 occupations for NVQ courses conducted in Colombo district in 2023. Over 16 percent are from VTA followed by 11 percent from NYSC, 10 percent from DTET, 8 percent from CGTTI, and 6 percent from NAITA. The percentage share of the total number of NVQ certificates issued for NVQ courses conducted in Colombo district by private sector training providers is 31 percent. Care Giver course recorded the highest number of NVQ qualified persons while cook, ICT technician, automobile mechanic, auto tinker, domestic housekeeping assistant, electrician, and hair dresser occupations recorded over 500 numbers each of skilled persons in Colombo district (*Please see the appendix for more details*).

Table 4. 30: NVQ qualified Skilled Personnel in the Gampaha District by Occupation and Training Provider for Selected Industry Sectors in 2023

Industry Sector	DTET	NAITA	NYSC	VTA	Public Other	Private	Total
Construction	112			68			180
Hotel & Restaurants				380		130	510
ICT	55	65	118	339		552	1,129
Manufacturing	145		17	264	57	432	915
Other Sectors Total	222		97	773	324	2,168	3,584
Gampaha District Total	534	65	232	1,824	381	3,282	6,318
% As Gampaha District Total	8%	1%	4%	29%	6%	52%	100%

Source: TVEC Information Systems.

Table 4.30 shows that 6,318 NVQ certificates have been issued in 71 occupations for NVQ courses conducted in Gampaha district in 2023. About 29 percent are from VTA followed by 8 percent from DTET, 4 percent from NYSC, and 1 percent from NAITA. The percentage share of the total number of NVQ certificates issued for NVQ courses conducted in Gampaha district by private sector training providers is 52 percent. Care Giver course recorded the highest number of NVQ qualified persons while cook, computer application assistant, ICT technician, electrician, hair dresser, and heavy vehicle operator occupations recorded over 400 numbers each of skilled persons in Gampaha district (Please see the appendix for more details).

Table 4. 31: NVQ qualified Skilled Personnel in the Kalutara District by Occupation and Training Provider for Selected Industry Sectors in 2023

Occupation	DTET	NAITA	NYSC	VTA	Public Other	Private	Total
Construction	91			21	43	11	166
Hotel & Restaurants			14	428		100	542
ICT	122	64	274	211		164	835
Manufacturing	74	26	46	270	39	157	612
Other Sectors Total	202	21	236	380	241	375	1,455
Kalutara District Total	489	111	570	1,310	323	807	3,610
% As Kalutara District Total	14%	3%	16%	36%	9%	22%	100%

Source: TVEC Information Systems

Table 4.31 shows that 3,610 NVQ certificates have been issued in 58 occupations for NVQ courses conducted in Kalutara district in 2023. About 36 percent are from VTA followed by 14 percent from DTET, 16 percent from NYSC, and 3 percent from NAITA. The percentage share of the total number of NVQ certificates issued for NVQ courses conducted in Gampaha district by private sector training providers is 22 percent. Cook course recorded the highest number of NVQ qualified persons while computer application assistant, ICT technician, and electrician, occupations recorded over 300 numbers each of skilled persons in Kalutara district (Please see the appendix for more details).

Chapter 5: Key Highlights and Action Plan for the TVET Sector

5.0 Key Highlights

- A majority of the employers in the four industry sectors highlighted the importance of soft skills, as well as attitude, personality, and commitment. They note that these skills should be effectively developed at technical and vocational educational centers to align with demands of the industry environment.
- The majority of manufacturing industries utilize semi-automated and automated technology trends. Therefore, it is crucial for vocational centers to provide and enhance their technical and vocational training programs to ensure they are up-to-date with the latest technology trends that align with the technologies currently being used in the industries.
- A significant number of employers in the Hotel sector emphasized the importance of English language proficiency and soft skills, noting that these abilities should be effectively developed at technical and vocational educational centers. This development is essential for employees to effectively interact with both local and foreign customers, aligning with the environment of star-category hotels.
- Substantial number of employers requires Multi-tasked persons and utilizing latest technologies. It is vital for TVET centers to provide and enhance their technical and vocational training programmes to ensure they are up-to-date with the latest technology trends that align with the technologies currently being used in the hotel industries.
- Considering the ICT sector, around 50 percent of the industries utilize UI / UX Programmer, Artificial Intelligence and Machine Learning, Internet of Things (IOT) and Cyber Security technology trends. Consequently, it is crucial for technical and vocational centers to continually update and enhance their training programs to align with the technologies currently being used in the ICT industries.
- Around 50% of construction industries utilize Precast Construction Technology / Modular Construction, Pre-Engineering / Pre-Fabricated Building System / Steel Construction, Computer Aided Programming System and Load bearing masonry wall construction technology trends. Therefore, it is crucial for vocational centers to provide and enhance their technical and vocational training programs to ensure they are up-to-date with the latest technology trends that align with the technologies currently being used in the industries.
- Based on the survey results, most demanded occupations in the ICT industries are more professional jobs, such as Software Developer, Software Engineer, Web Developer, etc., which require degree level educational qualification. However, in the technical and vocational training sector, high-demand courses are certificate-level computer courses such as Computer Application Assistant, ICT Technician, etc. Therefore, it is crucial to reduce these skills gaps and mismatches by enhancing technical and vocational programs up to the degree level to align with industry demand.

5.1 Action Plan for the TVET Sector

No.	Activity	Period of Implementation					Responsible Agencies
		2025	2026	2027	2028	2029	
01.	<p>Accessibility to Vocational Training and Skills Development Programmes Establish and Develop Training Centers in Divisional Secretariat Divisions with No Public Vocational Training Centers (Baduraliya (Palinda Nuwara) and Millaniya DS divisions)</p> <ul style="list-style-type: none"> • Prepare proposals for funding for both state and non-state sectors • Implement the proposals <p>(Courses to be identified on rationalized basis to respond to labour market demand)</p> <ul style="list-style-type: none"> • Utilize unoccupied Government owned buildings to provide vocational training programmes • Recruit and deploy adequate number of qualified teachers and instructors for Training Provisions (Medium of training) • Implement training programmes 						Provincial Steering Committee, Public Training Institutes
02.	<p>Develop training centres with a uniform course mix under an incentive scheme for Investors in unutilized and underutilized facilities on lease in the Province</p> <ul style="list-style-type: none"> • Identify unutilized and underutilized facilities of the state sectors • Assess the accessibility of the facilities (transport) and utility arrangements • Make available for investors 						Provincial Steering Committee , TVEC, VTCs NAITA and all training institutes & DSs
03.	<p>Review, develop and update NCS and Curricula relevant to four (04) industry sectors with special emphasis on Soft skills:</p> <ul style="list-style-type: none"> ▪ <i>Communication Skills</i> ▪ <i>Teamwork</i> ▪ <i>Problem-Solving</i> ▪ <i>Critical Thinking</i> ▪ <i>Adaptability</i> ▪ <i>Time Management</i> ▪ <i>Attention to Detail</i> ▪ <i>Customer Service</i> ▪ <i>Ethics and Integrity</i> ▪ <i>Leadership</i> <p>ICT Sector Review certificate and diploma level TVET programmes in order to align with degree level programmes (Software Engineering, Software Development, Web Development)</p> <p>Incorporate UI / UX Programming, Artificial Intelligence and Machine Learning, Internet of Things (IOT) and Cyber Security technology at basic and intermediate levels</p>						TVEC, NAITA and UoVT

No.	Activity	Period of Implementation					Responsible Agencies
		2025	2026	2027	2028	2029	
	<p><u>Manufacturing Sector</u> Incorporate semi-automation and automation technology at basic level and align with NVQ diploma level programme</p> <p>Develop NCS and Curricula for Automation Assistant/ Junior Automation Technician</p> <p><u>Hotel & Tourism Sector</u> Incorporate English language hotel & tourism related training programmes Incorporate the latest technologies used in the sector at basic and intermediate levels</p> <p><u>Construction Sector</u> Review and incorporate precast construction technology / modular construction, pre-engineering / pre-fabricated building system / steel construction, computer aided programming system and load bearing masonry wall construction technology at basic and intermediate levels.</p>						
04.	<p>Establish a dedicated training centres for Hotel & Tourism in Kalutara and Gampaha District for Hotel & Tourism Sector to cater skills requirements for craft level</p> <ul style="list-style-type: none"> ▪ Utilize unoccupied Government owned buildings to provide vocational training programmes ▪ Recruit and deploy adequate number of qualified teachers and instructors for Training Provisions (Medium of training) ▪ Implement training programmes 						Provincial Steering Committee, TVEC, (PSCs), SLTDA, SLITHM, NAITA & DSs
05.	<p>Enhancing Tourism Experience: A Multi-Pronged Approach Introduce and implement multi-foreign language training programmes to cater to the tourist requirements of the front desk in hotels and tour guides in regional areas Promote and expand the Hotel Operations Multitasked training programme across the province</p>						Provincial Steering Committee, TVEC
06.	<p>Introduce Tamil medium courses in training centres which are located close to Tamil speaking communities (Courses to be identified on rationalized basis to respond to labour market demand)</p> <ul style="list-style-type: none"> • Utilize unoccupied Government owned buildings to provide vocational training programmes • Recruit and deploy adequate number of qualified teachers and instructors for Training Provisions • Implement training programmes 						Provincial Steering Committee, TVEC, VTA, DTET NAITA and all training institutes & DSs

Vocational Education and Training Plan for Western Province

No.	Activity	Period of Implementation					Responsible Agencies
		2025	2026	2027	2028	2029	
07.	Launch programmes to promote gender equity in VT centres to recruit and retain female participation in non-traditional trade courses with provisions of necessary facilities in training delivery, on-the-job training and also with follow up assistance	[Redacted]					Provincial Steering Committee, TVEC, VTA NAITA, DTET and all training institutes & DSs
08.	Increase more weekend/evening/short-term demand driven courses for employees Develop and deliver modular and unit-based part-time training programmes and award ROAs at all NVQ Levels, Negotiate with Employees' Trust Fund for them to fund for skills development of their members /contributors	[Redacted]					Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
09.	Arrangements for referral to other institutes and receiving some remuneration while following courses at vocational training institutes	[Redacted]					Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
10.	Apprenticeship and On-the-Job Training (OJT) Programmes <ul style="list-style-type: none"> ▪ Identify suitable establishments and evaluate capacity for apprenticeship training and OJT in each Divisional Secretariat Division ▪ Develop apprenticeship training in livelihood occupations in industry clusters (e.g. handloom, handicraft, clay product) ▪ Increase annual enrollment in apprenticeship training in informal sector and relevant livelihood occupations 	[Redacted]					Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
11.	Vocational Training/ Apprenticeship Training for Disabled and Vulnerably affected Persons <ul style="list-style-type: none"> ▪ Identify the potential groups (disability/ vulnerability) in each Divisional Secretariat Division ▪ Identify appropriate and suitable mode of training according to the availability of training provisions ▪ Facilitate training provisions 	[Redacted]					Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
12.	Skills Development Programmes and Uplift living standards Programmes <ul style="list-style-type: none"> • Establish and Develop Community Training Centers in Divisional Secretariat Divisions to facilitate short courses on livelihood occupations and gig jobs • Introduce programmes to uplift the living standards of practicing craft persons and their children. (Managing finance, non-alcoholic and drug-free living etc.) • Identify requirements of respective livelihood occupations and gig jobs 	[Redacted]					Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs

Vocational Education and Training Plan for Western Province

No.	Activity	Period of Implementation					Responsible Agencies
		2025	2026	2027	2028	2029	
	<ul style="list-style-type: none"> Prepare proposals for funding “skills development programme” Implement the proposals Hire resource persons for training programmes Implement training programmes 						
13.	Career Guidance and Development <ul style="list-style-type: none"> Establish Divisional Coordination Committees to do collective planning of Career Guidance Programmes at schools in each Divisional Secretariat division Establish community and school-based Career Explorer Clubs to inculcate career exploring mindset among youth/school children, possibility to link with the inventors club available in school Facilitate Psychological Support services to absorb applicants from disadvantaged groups into the mainstream vocational courses. 						Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
14.	Loan Scheme for Vocational Certificate Holders <ul style="list-style-type: none"> Expand the Self Employment Promotion Initiative (SEPI) Loan Scheme Guide beneficiaries to obtain SEPI loan 						Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
15.	Identify funding sources to conduct training partially or without the financing from the Government <ul style="list-style-type: none"> Permit the sale of goods and services produced in VT centres and evaluate the production capacities of selected centres. Identify areas of goods and services intended to be produced in VT centres and minimum standards for those goods and services. Develop a system for monitoring and management of non-budgetary funds Organize sale of goods and services produced in VT centres Evaluate sale-oriented production activity in VT centres Identify alternative funding sources (employers and international organizations) 						Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs
16.	Re-orient TVET programmes to meet foreign employment labour demands <ul style="list-style-type: none"> Identify high-demand sectors Analyze skill gaps Adopt international standards and certifications Incorporate language and cultural training Explore and promote internship training in the destined country 						Provincial Steering Committee, TVEC VTA, DTET, NAITA and all training institutes & DSs

Vocational Education and Training Plan for Western Province

No.	Activity	Period of Implementation					Responsible Agencies
		2025	2026	2027	2028	2029	
17.	Award NVQ certificates to the workforce who have acquired competencies through work experience, viz. RPL with relevant knowledge modules to bridge the skills gaps						Provincial Steering Committee, TVEC, VTA, DTET, NAITA and all training institutes & DSs
18.	<p>Promote entrepreneurship development among self-employed persons and TVET students</p> <ul style="list-style-type: none"> • Organize workshops and seminars for target groups • Promote hands-on projects among TVET students • Practice real-world simulations • Encourage internships and apprenticeships • Organize networking events • Organize field visits and exposure trips • Provide access to online learning and e-learning modules • Provide business incubation and support • Conduct regular evaluation and feedback 						Provincial Steering Committee, TVEC, SLBFE
19.	Introduce and implement “Job oriented employment” opportunity training programmes targeting school leavers (Develop course contents covering English language, IT, Management and Personality Development)						Provincial Steering Committee, TVEC, VTA, DTET, NAITA and all training institutes & DSs

References

- Asian Development Bank.(2015) Innovative strategies in technical and vocational education and training for accelerated human resource development in South Asia: Sri Lanka. Mandaluyong City, Philippines: Asian Development Bank.
- Australian Government. (2020). National Careers Institute: Equity Initiatives. Retrieved from <https://www.nci.org.au/equity-initiatives>
- Australian Government. (2021). Australian Qualifications Framework. Retrieved from <https://www.aqf.edu.au/>
- Australian Government. (2022). Vocational Education and Training (VET). Department of Education, Skills and Employment. Retrieved from <https://www.dese.gov.au/vocational-education-and-training>
- BIBB - Federal Institute for Vocational Education and Training. (2021). The Dual System. Retrieved from <https://www.bibb.de/en/55134.php>
- BIBB - Federal Institute for Vocational Education and Training. (2021). The Dual System. Retrieved from <https://www.bibb.de/en/55134.php>
- BMBF - Federal Ministry of Education and Research. (2021). Vocational Education and Training in Germany. Retrieved from <https://www.bmbf.de/en/vocational-education-and-training-in-germany-2064.html>
- BMBF - Federal Ministry of Education and Research. (2021). Vocational Education and Training in Germany. Retrieved from <https://www.bmbf.de/en/vocational-education-and-training-in-germany-2064.html>
- Cedefop. (2019). Monitoring VET systems and reforms. Retrieved from <https://www.cedefop.europa.eu/en/tools/benchmarking/research-briefs/monitoring-vet-systems-and-reforms>
- European Centre for the Development of Vocational Training (Cedefop). (2021). Vocational Education and Training (VET) Toolkit. Retrieved from <https://www.cedefop.europa.eu/en/toolkits/resources-guidance/vet-toolkit>
- European Commission. (2020). Vocational Education and Training (VET) Policies and Strategies. Retrieved from https://ec.europa.eu/education/policies/vocational-education-and-training_en
- European Training Foundation. (2018). Strengthening partnership between education and training systems and employers. Retrieved from <https://www.etf.europa.eu/en/news-and-events/newsroom/strengthening-partnerships-between-education-and-training-systems-and-employers>
- Eurydice - European Commission. (2020). Vocational Education and Training in Denmark. Retrieved from https://eacea.ec.europa.eu/national-policies/eurydice/content/vocational-education-and-training-denmark-56_en
- IEA (2020), Sustainable Recovery, IEA, Paris <https://www.iea.org/reports/sustainable-recovery>, Licence: CC BY 4.0
- IHK - Chambers of Industry and Commerce. (2021). The Dual System. Retrieved from <https://www.ihk-lehrstellenboerse.de/en/guide/vocational-training-in-germany/dual-training-system/>

- IHK - Chambers of Industry and Commerce. (2021). Vocational Training. Retrieved from <https://www.dihk.de/en/topics-of-dihk/vocational-training>
- ILO. (2017). Designing and Implementing Training Programs. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---gender/documents/publication/wcms_546763.pdf
- ILO. (2018). Making VET Work: Bridging Education and Employment. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_617896.pdf
- ILO. (2021). Strategic Partnerships for Skills Development. Retrieved from <https://www.ilo.org/skills/areas/strategic-partnerships-for-skills-development/lang--en/index.htm>
- International Labour Office. (2019) Future of Work in Sri Lanka: Shaping technology transitions for a brighter future, ISBN: 978-92-2-132995-4 (print) 978-92-2-132996-1 (web pdf)
- International Labour Organization. (2022). Vocational Education and Training (VET). Retrieved from https://www.ilo.org/skills/areas/Vocational_Education_and_Training/lang--en/index.htm
- International Labour Organization. (n.d.). Vocational Education and Training (VET). Retrieved from https://www.ilo.org/skills/areas/Vocational_Education_and_Training/lang--en/index.htm
- ITE. (2021). Institute of Technical Education. Retrieved from <https://www.ite.edu.sg/>
- National Skills Commission. (2021). Industry Training Packages. Retrieved from <https://www.nationalskillscommission.gov.au/what-training-packages>
- OECD. (2019). Effective apprenticeships systems. Retrieved from <https://www.oecd.org/cfe/leed/Effective-apprenticeship-systems-2019.pdf>
- SECO - State Secretariat for Economic Affairs. (2021). Vocational and Professional Education and Training in Switzerland. Retrieved from <https://www.seco.admin.ch/seco/en/home/Arbeit/neue-berufe-und-qualifikationen/berufs--und-hochschulbildung.html>
- SERI - State Secretariat for Education, Research and Innovation. (2021). Vocational and Professional Education and Training in Switzerland. Retrieved from <https://www.sbf.admin.ch/sbf/en/home/education/vet.html>
- Skills Tasmania. (n.d.). VET Planning. TasTAFE. Retrieved from <https://www.tastafe.tas.edu.au/studying-at-tastafe/students-with-disabilities-and-special-needs/vet-planning/>
- SkillsFuture Singapore. (2021). About SkillsFuture. Retrieved from <https://www.skillsfuture.gov.sg/>
- Undervisningsministeriet - Ministry of Education of Denmark. (2021). The Danish Vocational Education and Training System. Retrieved from <https://eng.uvm.dk/upper-secondary-education/vocational-education-and-training-vet>
- UNESCO. (2016). Technical and Vocational Education and Training (TVET) for Youth Employment. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000246377>
- UNESCO-UNEVOC. (2019). Innovative teaching and learning in TVET. Retrieved from <https://unevoc.unesco.org/home/UNEVOC+Publications/lang=en/akt=detail/qs=6468>
- UNESCO-UNEVOC. (2020). Promoting TVET for Sustainable Development. Retrieved from <https://unevoc.unesco.org/home/UNEVOC+Publications/lang=en/akt=detail/qs=6266>

World Bank. (2020). Vocational Education and Training (VET) Overview. Retrieved from <https://www.worldbank.org/en/topic/skillsforcompetitiveness/vocational-education-and-training>

World Bank. (2023). Global Economic Prospects: Shifting Growth Patterns. Washington, DC: World Bank

World Economic Forum. (2023). The Future of Jobs Report, Geneva, Switzerland

WSG - Workforce Singapore. (2021). Industry Transformation Maps. Retrieved from <https://www.wsg.gov.sg/programmes-and-initiatives/industry-transformation-maps.html>

WSG. (2021). Workforce Singapore. Retrieved from <https://www.wsg.gov.sg/>

<https://www.ft.lk/columns/Direction-for-future-ready-workforce-Global-and-local/4-712269#:~:text=In%20general%2C%20the%20demand%20for,and%20services%20in%20a%20country.>

<https://www.linkedin.com/pulse/top-10-most-in-demand-ict-jobs-support-measures-haris-fotso>

<https://www.ilo.org/resource/news/ict-jobs-are-demand-and-everyone>

<https://www.techtarget.com/whatis/feature/Top-8-most-in-demand-IT-tech-jobs>

<https://www.randstadenterprise.com/in-demand-skills>

<https://www.coursera.org/articles/tech-job-market>

<https://www.maximaconsulting.com/newsroom/it-jobs-increasing-in-demand>