PROVINCIAL
VOCATIONAL EDUCATION AND TRAINING (VET) PLAN
CENTRAL PROVINCE

2015 to 2019

TERTIARY AND VOCATIONAL EDUCATION COMMISSION

(Ministry of Skills Development and Vocational Training)

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Colombo - 05

Foreword

The Tertiary and Vocational Education Commission (TVEC) undertook this study at the request of Hon. Chief Minister of the Central Province with the financial assistance provided by the Treasury. In doing so the TVEC was exercising the mandate given to it for planning and coordination of Technical and Vocational Education and Training sector in Sri Lanka at all levels.

TVEC has been entrusted with the mandate for planning, coordination and quality assurance of the TVET programmes conducted by many training providers under the Tertiary and Vocational Education (TVE) Act No. 20 of 1990 as amended. In keeping with the provisions of the Act, the National Vocational Qualifications framework (NVQ) was established by the TVEC and it addresses national level coordination of TVET Programmes and Institutions. In fact, NVQ Operation Manual developed for the implementation of the NVQ Framework has outlined roles and responsibilities of different public sector TVET institutions. In parallel to the development of the NVQ framework, many attempts have been made to coordinate TVET programmes at Proivincial and District levels in order to rationalize their TVET programmes for effective use of resources.

TVE Act also has provisions for the development of Provincial Vocational Education and Training Plans (VET Plans). This is the tool in the TVE Act to coordinate and rationalize Provincial and District level TVET programmes. Further, the Provincial VET Plan focuses on identifying skills development needs of key industries in the province and to develop and deliver the TVET programmes accordingly.

All stakeholders; Officials and Staff of the Central Provincial Council, representatives of key industries in the province and representatives of the provincial TVET institutions were involved in development of this VET Plan. While acknowledging the contributions made by the stakeholders, we seek the cooperation of all of them to implement the Plan effectively. Provincial VET Plans for Sabaragamuwa, Eastern, Southern, North Western, Uva and Northern Provinces have already been developed and will be implemented in the Province during next 5 year period. Action will also be taken to translate the plans into Sinhala and Tamil, as appropriate, and distribute them to the relevant institutions and beneficiaries in due course.

Prof. N. R. Arthanayake
Chairman
Tertiary and Vocational Education Commission

Acknowledgement

This Vocational Education and Training plan (VET plan) is a result of team work of TVEC and Central Provincial Council Office. First I express my appreciation and gratitude to Hon. Sarath Ekanayake, Chief Minister of the Central Province for his request to prepare a provincial VET plan and for encouragement given. Chief Secretary of the Province Mr. Sarath Premawansa, chaired meetings held with stakeholders and other participants in the development of this plan. Deputy Chief Secretary (Planning), Mr. M.R.G.H. Dassanayake, coordinated all workshops held with representatives of industry sectors, training institutes and other stakeholders and provided facilities to make this effort a success. District Secretaries and Divisional Secretaries in Kandy, Matale and Nuwara Eliya provided their fullest support by providing access to various data sources and sending their experts to workshops held. The support given by Mrs R.M.S. Manike and Mr. Pradeep Rajapakse and other officials of the Provincial Secretariat need special appreciation in organizing and conducting workshops and proving required information.

This VET plan is prepared by a five member academic team of University of Peradeniya. Dr. Ananda Jayawickrama of Department of Economics and Statistics was entrusted with the responsibility of the development of the VET plan in consultation with TVEC, provincial authorities and relevant stakeholders. He was supported by Mr. Baratha Dodonkotuwa of Department of Management Studies, Dr. J.G. Sri Ranjith of Department of Economics and Statistics, Mr. Ravi Kuruppuge of Department of Management Studies and Mr. Susantha Rasnayake of Department of Sociology. TVEC extends its appreciation to the project team for the job done.

TVEC appreciates the support extended by officials of TVET training institutes such as NAITA, VTA, DTET, NYSC, other public sector, private and NGO training providers for their support. Officials who attended to workshops and discussions representing various government institutions such as REDA, DIDEP, BOI and Chambers of Commerce are also appreciated for their support. We appreciate support extended by trained and trainees, industry owners and managers, managers and instructors of training institutes, other government officials and all those who attended to TVET workshops.

As a team at the TVEC, this exercise was carried out by Mr. P.C.P. Jayathilake Director (Planning and Research) and other Directors, all Deputy Directors, Mr. G.A.M.U. Ganepola, Assistant Director (Planning & Research) with other Assistant Directors, Ms. Kumudu Amarasinghe, Computer Application Assistant with all other staff. While commending their dedication and commitment to produce the valued document, I appreciate the work of all those who contributed for the successful completion of this VET Plan. I expect same level of cooperation from all officials and stakeholders to implement this plan.

Malkanthi Jayawardane
Director General
Tertiary and Vocational Education Commission

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Abbreviations

AC	Air Condition
ASI	Annual Survey of Industries
BOI	Board of Investment
BPO	Business Process Outsourcing
CLS	Computer Literacy Survey
DCS	Department of Census and Statistics
DIDEP	Department of Industrial Development and Enterprise Promotion
DS	Divisional Secretariats
DTET	Department of Tertiary Education and Training
GCE (A/L)	General Certificate of Education (Advanced Level)
GCE (O/L)	General Certificate of Education (Ordinary Level)
GDP	Gross Domestic Product
GN	Grama Niladari
HDI	Human Development Index
ICTAD	Institute of Construction Training and Development
ICT	Information and Communication Technology
INGRIN	Institute of Printing and Graphics Sri Lanka Limited
MFA	Multi Fiber Arrangement
NAITA	National Apprentice & Industrial Training Authority
NGO	Non Governmental Organizations
NVQ	National Vocational Qualifications
NYSC	National Youth Services Council
OJT	On the Job Training
SLASSCOM	Sri Lanka Association of Software and Service Companies
SLTDA	Sri Lanka Tourism Development Authority
TVEC	Tertiary and Vocational Education Commission
TVET	Technical and Vocational Education and Training
VET	Vocational Education and Training
VTA	Vocational Training Authority (District and regional training centers)

Executive Summary

This report provides the Vocational Education and Training Plan for the Central province for the next five year period. This provincial VET plan outlines strategies to bridge the gap between demand for and supply of skilled manpower and will provide significant benefits to all its stakeholders i.e. industry sectors, Technical and Vocational Education and Training (TVET) providers and the youth aspiring to undergo training. The VET plan also defines the mechanisms to coordinate relevant stakeholders and thus effective coordination could be expected during the implementation of the VET plan. In line with the VET plan, TVET institutions will utilize their resources to conduct demand driven programmes with a higher degree of rationalization of human and physical resources.

This VET plan was developed for the Central province by TVEC on the request of the Chief Minister of the Central province and under the direction of the Ministry in charge of TVET sector. The economy of the province is predominantly plantation and agricultural based with substantial contributions from the service sector and small scale cottage industries. The potential for growth is huge as most of the resources in the province are unutilized or under-utilized at present.

The main objectives of this VET plan are to identify demand for and supply of skills needs in the major industry sectors of the province and any gaps between demand for and supply of skills in major industry sectors. The VET Plan identifies key industry sectors and their development trends, make forecasts of skills for the next five years, identify skill requirements of different livelihoods, matches demand for and supply of skills and make recommendations for establishment of career guidance services, improvement of existing courses, expansion or contraction of existing courses, establishment of new courses and training institutes, training of trainers and proposes mechanisms to coordinate the implementation of the VET plan in Kandy, Matale and Nuwara-Eliya districts.

This VET Plan identifies the following main sectors in the analysis: construction sector, light engineering sector, automobile repair and service sector, household electrical equipment repair services, information and communication industry, printing and publishing industry, textiles and clothing industry, hotel and tourism industry and cottage industry. The sector reports compiled the information on number of firms, their production, future growth prospects, employment, future employment opportunities and training requirements under jobs/job categories. It is found that construction, hotel and tourism, light engineering, automobile, ICT and printing &

publishing industries are fast growing sectors in the province. Further, some cottage industries especially food and beverages, personal services also significantly contribute to growth and employment generation. Though the growth rate has been arrested in recent decades, textiles and clothing industry is also a major employment generator of the province. The chapter paid attention to the possible supply of labour to the foreign market under relevant sector reports. The sector reports identify training requirements for a large number of jobs.

The profile of training institutions and issues faced by them, course mix and course availability by type of training and the estimated number of registered students in vocational education programmes were discussed based on available secondary data and sample survey on training institutes, focused group discussions and interviews. Based on number of NVQ certificates issued, the expected number of completion of training and demand for skills, the gap between demand for and supply of skilled workers is obtained for different occupations in each sector. The responses from NVQ trained persons and current trainees on their employability, benefits from training, quality of training, issues related to training and suggestions are used to identify main issues related the demand for and supply of training in the Central province.

Finally, the proposed training plan of vocational education and training for the Central province for the five-year period was drawn based on the gap between demand for and the supply of training and outcomes of the sample survey of training institutes, trained persons, current trainees and interviews with expert and focus group discussions. The training requirements under different occupations and identified training providers are given. Further, the availability of courses and training institutes to undertake the proposed training is given and highlighted. Further, short-term and medium term interventions and respective bodies are identified in the development of TVET in the Central province. The VET plan provides the details of achieving objectives by implementing activities proposed.

CHAPTER ONE
INTRODUCTION

1.0 Overview

The Tertiary and Vocational Education Commission (TVEC) of Sri Lanka was established in 1991 under the Tertiary and Vocational Education Act No. 20 of 1990 and reconstituted as a statutory body by the TVE (Amendment) Act. No 50 of 1999 with following main objectives:

- To develop, review, and reformulate national policies on tertiary and vocational education and training;
- To formulate plans for the development of tertiary and vocational education and training sector;
- To implement the national system of quality assurance through registration of institutes and accreditation of training courses;
- To ensure the establishment and maintenance of standards by Tertiary and Vocational Education and Training (TVET) institutions;
- To plan and coordinate the implementation of national trade testing and certification system;
- To develop and maintain a national system of vocational qualifications;
- To maintain the labour market information system for the TVET sector;
- To develop TVET institutes through management development programmes and financial assistance and
- To promote parity of esteem between education and training.

In order to achieve above objectives, the TVEC has undertaken various activities since 1999 in the promotion and expansion of vocational education and training in Sri Lanka. One of the important activities initiated by the TVEC is to prepare Vocational Education and Training (VET) plans for key industry sectors of the economy and Provincial Vocational Education and Training Plans outlining current training profile, demand and future requirements.

The provincial training plans are highly important in scrutinizing training provision and identifying need based training requirements. There are many public, private and NGO sector training providers in the provision of VET training at provincial levels. Improvements and expansion of VET requires rationalization of training programmes and the resources of these different training providers. Therefore, the provincial VET plan provides guidelines, as set out by the Tertiary and Vocational Education Act, to ensure rationalized implementation of training and further expansion of VET at provincial level. The VET plan is prepared in consultation with and participation of TVEC, training providers, relevant provincial and local authorities, industry sector, trained and trainees and other stakeholders. Once the VET plan is approved by His Excellency the President with or without amendments in consultation with the Hon. Minister in charge of vocational education and training, the provincial administration assumes the ownership of the VET plan which in turn will make all training providers in the province accountable for their adherence to effective implementation of the VET Plan. The progress of implementation of the VET plan will be reviewed regularly at district and provincial progress review meetings attended by civil administrators and training providers.

A provincial VET plan outlines the strategies to bridge the gap between demand for and supply of skilled manpower and will provide significant benefits to all stakeholders, i.e. industry sectors, training providers and the youth aspiring to undergo training. The VET plan will also define the mechanisms to coordinate relevant stakeholders and thus effective coordination could be expected during the implementation of the VET plan. In line with the VET plan, TVET institutions will utilize their resources to conduct demand driven programmes with a higher degree of rationalization of human and physical resources.

1.1 Rationale

This VET plan is developed for the Central Province by TVEC on the request of the Chief Minister of the Central Province and under the direction of the Minister in charge of TVET sector. The Central Province with a population of approximately 2.4 million of multi racial, multi lingual and multi religious and cultural people consists of three districts namely Kandy, Matale and Nuwara Eliya. The economy of the province is predominantly plantation and agricultural based with substantial contributions from the service sector and small scale cottage industries. The potential for growth is huge as most of the resources in the province are unutilized or under-utilized at present. The VET plan developed here provides directions and guidelines for training providers and other stakeholders for the rationalization, improvement and expansion of the TVET in the Central Province.

1.2 Objectives of VET Plan Development

The main objectives of this VET plan for the Central Provinceare primarily to identify the demand for and supply of skills needs and the gap between demand for and supply of skills in major industry sectors and propose training requirement and plans to fill the training gaps.

The specific objectives of this VET Plan are to:

- Analyze socio-economic background in order to identify population, education, labour force and economic trends of the province;
- Identify major industry sectors of the province;
- Identify number and career aspirations of new entrants to the labour market through analysis of school education system;
- Identify skills requirements of different livelihoods through assessments of livelihood occupations;
- Make forecasts of skills requirements for the next five year period;
- Assess VET courses available in the province and identify potentials for the supply of skills;
- Examine the possibility of introducing new livelihood skills with skills development programmes;
- Match demand for and supply of skills and make recommendations for establishment of career guidance services, improvement of existing courses, expansion or contraction of existing courses and establishment of new courses and training institutes and training of trainers; and
- Propose a mechanism to coordinate the implementation of the VET plan in the Central Province.

1.3 Methodology

This VET plan was developed with the participation of key stakeholders of TVET system in the province. The first meeting which led by Deputy Chief Secretary (Planning) and held at the Provincial Secretariat on 18th July 2013 laid the foundation for the preparation of the VET plan for the province. In this meeting, TVEC, Provincial Secretariat and the project team agreed to a framework and coordination of activities of the preparation of VET plan.

Secondary data were collected and analyzed to determine present socio economic structure, key industry sectors and the development trends of the Central Province. In this respect, various national and provincial level data sources and other recorded data in various institutions were used. Required primary data were collected mainly through questionnaires, interviews and focus group discussions.

Planning workshops were conducted on 6th, 16th and 23rd of August 2013 in Kandy, Matale and NuwaraEliya respectively with the participation of relevant stakeholders to identify key industry sectors in each district. In planning workshops the following major industry sectors and their subsectors were identified: construction sector, light engineering sector, automobile repair and service sector, household electrical equipment repair services, ICT sector, printing and publication sector, textiles and garment industry, hotel and tourism and cottage industries and services. The sector reports were prepared based on existing secondary data and primary data collected for the purpose. A semi structured questionnaire was used to collect required information from the industries located in the Central Province.

The training institutes, type of training programmes, their availability by DS divisions and districts, number of persons who completed NVQ training are obtained from the TVEC database. The information on training, training institutes, relevance of training, employability and other issues and suggestions were obtained by administering three questionnaires among the heads of training centers and their teachers, current students (trainees) in relevant centers and qualified students from respective training centers(trained). All head offices of public training providers and selected private and NGO training providers were contacted / interviewed to identify types of courses, student intake, training requirements, issues and future plans. A questionnaire was administered among 132 NVQ trained persons to obtained information especially on type of training received, quality and relevance of training, present employment status, benefits of training, future aspirations, issues in the training provision and suggestion to improve the training provision. Another questionnaire was administered among 130 students in training centers to obtained information especially on type of training, quality and relevance of training, future aspirations of trainees, issues related to training provision and suggestion to improve the training. In addition, discussions and interviews were conducted among various stakeholders such as representatives of Chambers of Commerce, officers of government institutions, academics and policymakers. The sector reports and training plan were presented and discussed at validation workshops held in the province and amended as necessary.

1.4 Sector Studies and Demand Forecasts

Initially services of sector experts were obtained to analyze skills and human resources demand in different sectors and sub-sectors identified at the planning workshops and prepare sector reports. The sector experts were expected to gather sector specific primary and secondary information required for the development of the VET Plan for the Central Province, analyze the gap between the demand for and supply of skills and forecast the demand for human resources in terms of types of skills to be provided and numbers to be trained in each occupation in order to meet skills requirement of that sector. Surveys were carried out with the assistance of Provincial Council to obtain primary data especially in areas where secondary data are not readily available. The report on each economic sector was discussed and amended at a validation workshop held on 22nd May 2014 with the participation of TVEC, government officers, professionals and practitioners of relevant industry sectors.

1.5 Training Requirement and Training Plan

Capacity requirements and issues related to VET faced by training institutes were obtained through sample surveys, interviews and focus group discussions. Present training profile of the province, human resource requirements by the industry sector, skills shortages, labour market, feedback from trained individuals and present trainees were presented to the training providers, government officials of the TVET sector in the province to work out TVET strategies to bridge the gap between demand and supply. The VET plan prepared incorporating all these outcomes was validated at a workshop held on 10th October 2014 with the participation of senior officials of the provincial council, district secretariats, TVEC and other relevant stakeholders.

1.6 Limitations

The project team faced many difficulties in the development of VET plan for the Province. One major issue is the absence of a proper and up to date industry lists covering all business activities of the province based on their scale of operation, employment, investment and type of business. The project team had to resort to various databases available at national level and provincial level prepared for other specific objectives to identify industries and business outlets. The lack of information especially on the size of economic activity/firm made our task more difficult as projection of labour requirements should be based on the size of the operation of businesses. The sample selection process was revised many times as enumerators reported that the selected sample units are non-existent in the field. Less attendance for meetings and workshops, especially from the industry sector, seems as another difficulty faced by the project team.

CHAPTER TWO

SOCIO-ECONOMIC ENVIRONMENT OF CENTRAL PROVINCE

2.0 Overview

The Central Province comprises 8.89 % of the land area with 12.6 % of the country's population. The land area of the province is 5,575 sq. km. which includes inland water area of 99 sq. km. Locating in the middle of the country with a higher elevation, Central Province has a mild hot-wet climate. Relatively higher rainfall (2200 mm annual), low temperature around 20c degrees and around 80% of humidity has made the region attractive and physically unique. The provincial council authority area consists of three administrative districts, namely Kandy, Matale and NuwaraEliya. Being the second highest population density region, Central Province has certain different as well as unique physical, historical, cultural and socioeconomic characteristics compared with other provinces of the country.Hence the province attracts by both local and foreign tourists as a tourist destination due to all or some of these characteristics.

In 2011, the share of the Central Province in national GDP is 9.8%. The contributions to provincial GDP by agriculture, industrial and service sector are 15.8%, 29% and 55.2% respectively. For the same year, the provincial GDP at current prices grew by 15.4% and reached Rs. 644 billion with a per capita income of Rs.236,931. Although the Poverty Head Count Ratio has been in a continuous declining trend over the 20 year period, the provincial Gini coefficient of household income was recorded at 0.51 being the highest income inequality province in the country. Unemployment rate in the province is around 6% of the workforce. Economically active population in the Central Province varies among districts. In 2011, it was 65% male and 35% female respectively in Kandy and Matale whereas it was 55% male and 45% female in Nuwara Eliya district.

2.1 Administrative Structure

The Provincial Council system was established in Sri Lanka in the year 1988 under the 13th Amendment to the Constitution of the Democratic Socialist Republic of Sri Lanka. Accordingly the functions of the Central Provincial Council have been commenced on the 14th July 1988.

There are 58 elected members in the Central Provincial Council, representing the major communities such as Sinhala, Tamil and Muslims living in the province.

The Governor appointed by the President functions as the Chief Executive of the Central Province. There is a Board of Ministers with the Chief Minister at the head and four other Ministers to aid and advice the Governor in the exercise of his function. The members of 5th Council 2009-2013 consists of five ministrieslisted below:

1. Chief Ministry and Ministry of Finance and Planning, Law and Order, Local Government and Provincial Administration, Human Resources, Education and Cultural Affairs, Tourist, Transportation, Land, Co-operative Development, Trade and Commercial, Food Supplies and Matters Related to the Delivery and Investment Coordination and the Minister responsible of the subjects that do encounter under other fields.
2. Ministry of Roads Development, Power and Energy,Housing and Constructions
3. Ministry of Agriculture, Irrigation, Production of Animal Husbandry, Agrarian Services, Inland Fisheries and Environment.
4. Ministry of Health, Indigenous Medicine, Social Welfare, Probation and Childcare Services.
5. Ministry of Industries, Sports, Education (Tamil), Estate Infrastructure, Women's Affairs, Rural Development, Hindu Cultural and Youth Affairs.

The Governor of the Central Province performs a range of social welfare activities and services for the enhancement of living of the people and officers in the province. Also in addition to promoting educational and extra-curricular activities a special project has been launched focusing on improving the basic standards and services provided by institutions in the province which have a direct impact on the population.

Table 2.1
Provincial Administration Units in Central Province

District	D.S. Divisions	G.N. Divisions	Villages	Urban/Municipal Councils	Pradeshiya Sabha
Kandy	20	1188	2758	05	17
Matale	11	545	1373	01	11
NuwaraEliya	05	491	1134	03	05
Central Province	36	2224	5265	9	33

Source: Department of Census and Statistics 2012

As shown in the Table 2.1 there are 42 local authorities which include Urban and Municipal Councils and Pradeshiya Saba administering and delivering the local government services in the province. They are all coming under the purview of the Commissioner of Local Government assisted by Regional Assistant Commissioners of Local Government. Also the number of Divisional Secretariats (D.S.) and Grama Niladari (G.N.) divisions functioning in each district amounts to 2260 in the province. According to the Statistical Handbook 2013 of Department of Census and Statistics the distribution of these local authorities including the number of villages are shown in the Table 2.2.

Table 2.2
Number of G.N. Divisions by Divisional Secretariats in Central Province

Kandy			**Matale**			**NuwaraEliya**		
D.S. Division	**No. of D.S.**	**No. of Villages**	**D.S. Division**	**No. of D.S.**	**No. of Villages**	**D.S. Division**	**No. of D.S.**	**No. of Villages**
Thumpane	67	135	Galewela	59	151	Kothmale	96	249
Pujapitiya	67	125	Dambulla	59	138	Hanguranketha	131	296
Akurana	35	90	Naula	52	100	Walapane	125	294
Pathadumbara	52	126	Pallepola	44	102	Nuwara Eliya	72	99
Panvila	14	57	Yatawatta	56	147	Ambagamuwa	67	196
Udadumbara	63	102	Matale	52	116			
Minipe	48	110	Ambanganga Korale	20	63			
Medadumbara	94	222	Laggala-Pallegama	37	80			
Kundasale	80	253	Wilgamuwa	39	100			
Gangawata Korale	64	92	Rattota	54	178			
Harispattuwa	84	139	Ukuwela	73	198			
Hatharaliyadda	57	122						
Yatinuwara	95	152						
Udunuwara	124	244						
Doluwa	33	137						
Pathahewaheta	73	212						
Deltota	29	72						
Udapalatha	49	131						
Ganga Ihala Korale	31	145						
Pasbage Korale	29	92						
Total	**1188**	**2758**	**Total**	**545**	**1373**		**491**	**1134**

Source: District Statistical Handbook 2012, Department of Census and Statistics.

The local development and administrative authorities set up by the Provincial Council system functioning as agents in their respective areas performing a greater role in achieving development goals at local levels. Some of these development activities are accomplished collaboratively and consistently with the Central and Provincial government agencies that can be recognized as another advantage for local development initiatives. Table 2.2 shows the complete/full list of Divisional Secretariats and their G.N. Divisions and villages separately in all the three districts of the Central Province.

2.2 Geography and Climate

The Central Province situated/located primarily in the central mountainous terrain of Sri Lanka. It is the 6th largest province by area and is home to 2.56 million people. The province is one of the land locked regions as shown in Figure 2.1 bordered by North Central Province to the North, Uva Province to the East, North Western Province to the West and Sabaragamuwa Province to the South and West. The Province's capital is Kandy.The province is famous for its production of Ceylon tea, plantedby the British in the 1860s after a devastating diseasekilled all the coffee plantations in the province. The Central Province attracts many tourists with hill station towns such as Gampola, Hatton and NuwaraEliya (also see Figure 2.2).

Figure 2.1

Location of Central Province in Sri Lanka

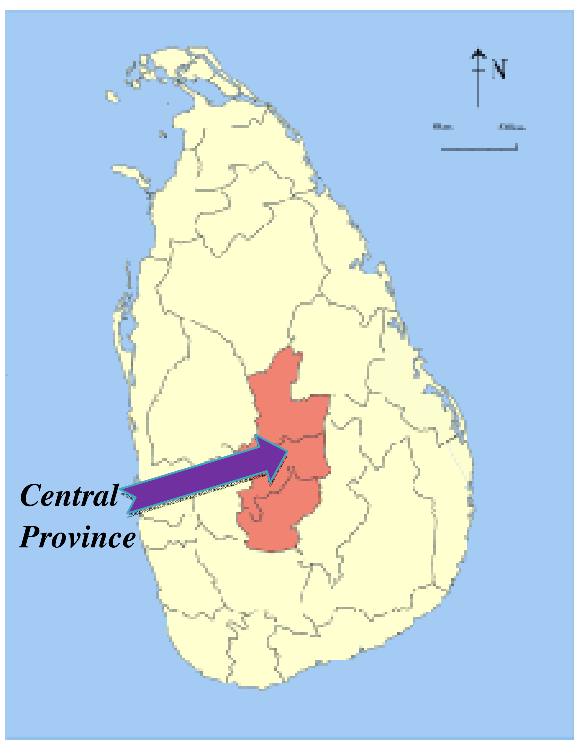


Figure 2.2
The Map of Central Province

The climate of the Central Province is cool, and many areas often have chilly nights. The western slopes are very wet, some places having almost 7000 mm of rain per year. The eastern slopes are parts of the mid-dry zone as it is receiving rain only from North-Eastern monsoon. The Temperature ranges from 24°C in Kandy to 16°C in NuwaraEliya, which is located 1,889 meters above sea level. The highest mountains in Sri Lanka are located in the Central Province. The terrain is mostly mountainous, with deep valleys cutting into it. The two main mountain regions are the central massif and the Knuckles range to the east of Kandy.

The economy of the Province is predominantly Plantation and Agricultural based with substantial contributions from the Service sector and cottage industries. The potential for growth is positive with many untapped resources and educated labor force in the province.In the Central Province 52% of the land has been cultivated while another 6.3% has been identified as lands which can be cultivated. Of the lands cultivated more than 35% has been utilized for tea while 15% has been utilized for paddy. The percentage of lands cultivated with coconut and rubber is 5% and 2.3% respectively.

2.3 Demography

Table 2.3 provides provincial information on population, land area and population density compared to other provinces. The Central Provincial Council Authority area consists of three Administrative Districts, Namely Kandy, Matale and NuwaraEliyawith land area of 1,917 sq. km 1,952 sq. km and 1,706 sq. km respectively.There are 58 elected members in the Central Provincial Council, representing the major communities, Sinhala, Tamil and Muslims living in the Central Province.

Table 2.3
Land area and population

Province	Land Area (Sq. km.)	Population '000	Population Density per Sq. km
Western	3,593	5,837	1,625
Central	5,575	2,557	459
Southern	5,383	2,466	458
Northern	8,290	1,060	128
Eastern	9,361	1,547	165
North Western	7,506	2,372	316
North Central	9,741	1,259	129
Uva	8,335	1,259	151
Sabaragamuwa	4,921	1,919	390
Total	**62,705**	**20,278**	**323**

Source Sri Lanka Socio-economic data 2012 (Vol. XXXV) by CBSL

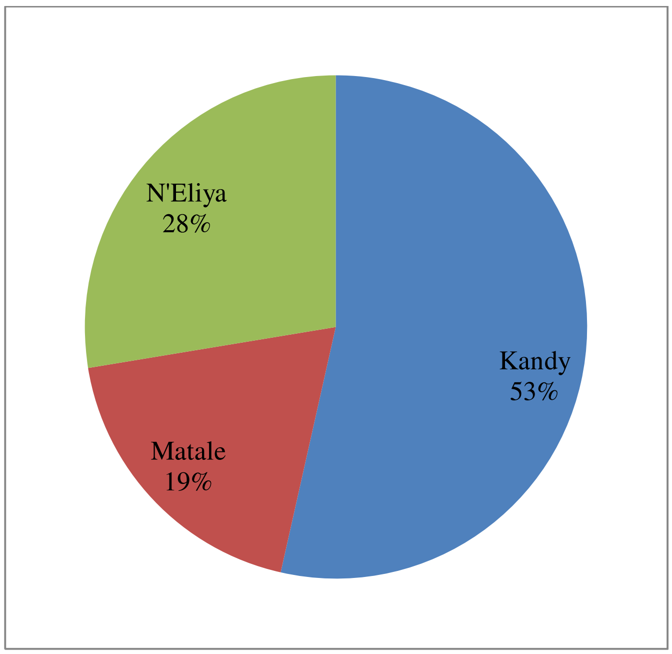
2.3.1 Population Distribution and Gender Composition

Figure 2.3 shows the population distribution among the three districts in the province. According to Sri Lanka socio-economic data, 2012 by Central Bank of Sri Lanka the total population of the central province is about 2.6 million which represent 13% of population in Sri Lanka. Being the second highest population density region the Central Province has approached to 488 persons per sq. km. which is the second highest after western province.

Of the three districts in the province Kandy accommodates 53% of its provincial population with a density of 747 persons per sq. km. The other two districts Matale and Nuwara Eliya are with the densities of 255 and 446 per sq. km. respectively. Although each of these districts is with much similar in the extent of land area the population densities are substantially different. This reflects the concentration of population in Kandy. As shown in Table 2.5, more than 60% of the provincial urban population is currently living in Kandy.

Figure 2.3

Distribution of Population 2012



Source: Socio-economic Data 2012 (Vol. XXXV) by Central Bank of Sri Lanka

Table 2.4 shows the distribution of population among the three districts and its composition in terms of gender. The figures given in the table shows that the number of female in all three districts is little over its male population. The sex ratio of this level which is generally the same in most of other districts is observed at national level and thus the ratio is currently around 98 male persons per 100 female in Sri Lanka.

Table 2.4
Population by District and Gender- 2012

District	Population	%	Male	%	Female	%
Kandy	1,369,899	53.58	649,790	47.4	720,109	52.6
Matale	482,229	18.86	232,,855	48.3	249,374	51.7
NuwaraEliya	706,588	27.64	338,646	47.9	367,942	52.1
Central Province	**2,556,774**	**100**	**1,221,291**	**47.70**	**1,337,425**	**52.30**

Source: Census and Statistics Population and Housing Data-2012

According to Table 2.4 the greatest disparity in term of male to female ratio is shown in Kandy district. However, the ratio in other two districts is very much closer to this figure. The important policy implication reflects from this figures is the vitality of female labor force participation in replacing male labor for economic development. Therefore, reducing gender disparity and encouraging male to participate education and training program needs more attention of policy makers and development practitioners.

2.3.2 Population Distribution by Sector

Population distribution in Matale and Nuwara Eliya districts in terms of urban, rural and estate shows considerable deviation from that of Kandy district. According to the current definition of Census and Statistics, urban sector comprises of all Municipal and Urban Council areas. As it is shown in Table 2.1, Kandy district has the most number of such council areas and GS and DS Divisions. For this reason, of the provincial population of Kandy has the greatest proportion of urban and rural population which is above 60%. Nuwara Eliya district is somewhat unique in term of its historical, economical and physical setup and therefore population living in estate sector consist the greatest part whereas Matale district has the lowest representation of population in all sectors recorded with lowest population density in the province.

Table 2.5
Population Distribution by Sector

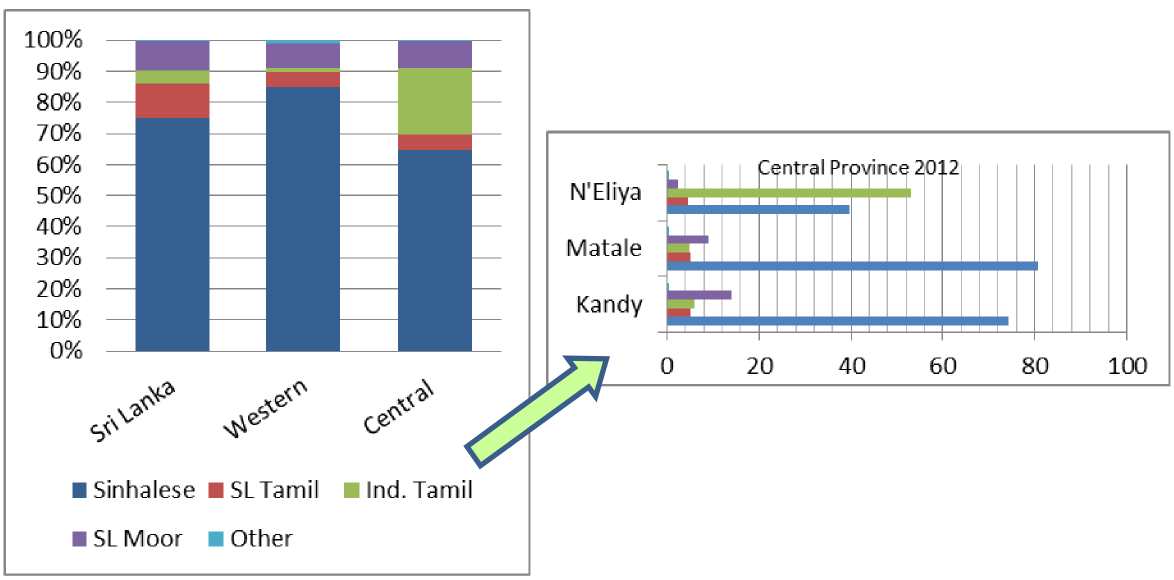
District	Sector						Total Population	Area Sq km	Population Density
	Urban		Rural		Estate				
	Number	%		%	Number	%			
Kandy	174,522	67	1,152,259	61	104,219	19	1,431,000	1,917	747
Matale	40,659	16	431,843	23	24,498	5	497,000	1,952	255
Nuwara-Eliya	46,722	18	306,721	16	407,557	76	761,000	1,706	446
CP	261,903	100	1,890,823	100	536,274	100	2,689,000	5,575	488

Source: District Statistical Handbook- 2010

The noticeable feature of the Figure 2.4 is the unequal distribution of different ethnic groups across provinces. Sinhalese being the majority in Sri Lanka has the largest representation in provincial levels also except Northern and Eastern Provinces. Also there is seemingly an equal distribution of Sri Lankan Moor in both Western and Central provinces and across districts in the central province. However, the distribution of Sri Lankan Tamil at the provincial level is below the Sri Lanka's average. A greater concentration of Indian Tamil in the Central Province is observed in NuwaraEliya district due to its' larger estate sector.

The ethnic distribution of the Central Province population is given in Figure 2.4.

Figure 2.4
Population by Ethnicity 2012



Source: District Statistical Handbook- 2013 Department Census and Statistics

According to the data of the Department of Census and Statistics, there is a similar pattern of distribution of the given three age groups across provinces. The greatest advantage of this pattern of age structure is the availability of a large proportion of working age group that ensures a continuous labor supply for a considerable period. This is a strong favorable factor for economic and social well-being of the country.

Around 60% of the population at provincial as well as at national level belongs to the age group of 15-59 years. However, it is difficult to say at this point how each region or district benefits with this greater proportion of workforce due to possible in and out migration of workers across different locations. Therefore gaining maximum development potential out of this workforce depends on development dynamics and the extent to which the labor force is educated and equipped with professional skills and training. Also failing to fulfill their development aspiration will result in adverse impacts with aging population in the future.

2.3.3 Differently-able Population

A part of population which is within the working age group can be identified as "persons with disabilities". Any person who, as a result of any deficiency in his/her physical or mental capabilities, whether congenital or not, is unable by himself/herself to ensure for himself/herself, wholly or partly, the necessities of life. According to the Department of Census and Statistics they are counted pertaining to 6 types of disabilities; such as seeing disabilities, hearing/speaking disabilities, disabilities in hands, disabilities in legs, other physical disabilities and mental disabilities.

Table 2.6
Provincial Disable Population by District

District	Total Population	No. of Disabled	Disabled Rate(per 10,000 persons)	%
Kandy	1,279,000	19357	152.1	1.51
Matale	441,300	7466	168.8	1.69
NuwaraEliya	703,600	10465	149.5	1.49
All country	18,797,300	274,711	162.9	1.5

Source: Census of Population and Housing 2001, Sri Lanka

Table 2.6 shows the number of disabled persons and its rate in the Central Province and in Sri Lanka. District-wise distribution in the province shows the disabled rate is somewhat similar to all country rate. The rate for Matale district is recorded with a higher number than that of all country and the other two districts. However, it is hard to say any particular reason for this difference.

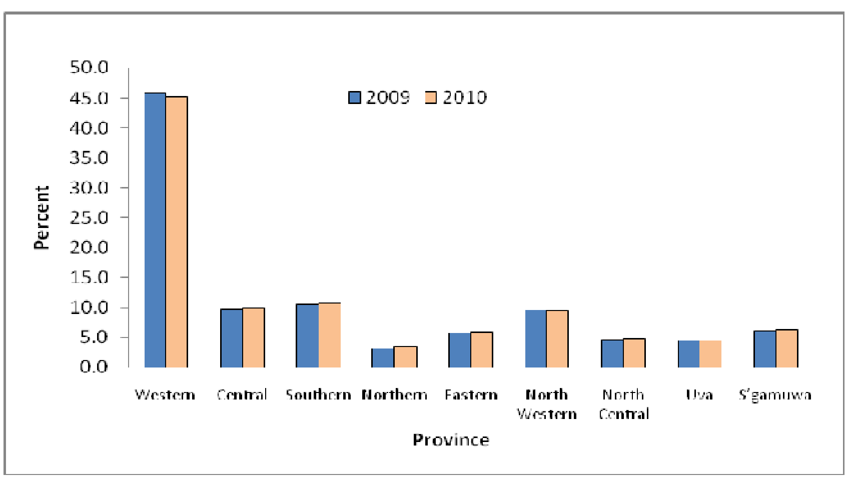
2.4 Economic Structure of the Central Province

Central Province is one of the fast growing regions in Sri Lanka in terms of its population and economic development with many investment opportunities for economic activity such as tourism, recreation and leisure, computer software development and many other light industries (also see for more info http://www.kandyinvestor.org/). According to Central Bank Socioeconomic data 2012, the provincial GDP is Rs. 644,214 million in 2011.

Currently and over the recent past years the province's contribution to total GDP is between 9-10% and the greatest part it which is around 50% is generated by the service sector. As it is shown by Figure 2.6, the Western Province made the highest contribution to GDP in 2010. However its share in GDP reduced to 45.1% from 45.8% in 2009. As in 2009, Southern Province provided the second highest contribution which was 10.7%, an increase compared to 10.5% in 2009, and this percentage is recorded even higher as 11.1% in the year 2011. The Central Province provided the third highest contribution maintaining its relative position compared to 2009 and managing to increase its GDP contribution to 10% in 2010. The North Western Province has reached 10% contribution to GDP in 2011 and potentials are there for that province to approach to the third highest contributor due to its spatial factors and access to major cities in the country. The contributions to GDP from Northern, Eastern, North Central and Sabaragamuwa provinces increased in 2010 while that of the Uva Province was unchanged.Per capita income as in many other provinces continued to fall below the national per capita income which is around Rs. 271,000 in 2011. However, the less per capita growth rate over the past period has made the Central Province to be ranked at the 5th or 6th place.

Figure 2.5

Gross Domestic Product Share by Province



Source: Socioeconomic data 2012 (Vol. XXXV) by Central Bank of Sri Lanka

The Table 2.7 shows the sector-wise provincial contribution to Sri Lanka's GDP. The GDP composition is much similar to other provinces except for the Western Province where least contribution comes from Agriculture and absolutely a high percentage of contribution generates from service sector. The greatest share of GDP in the Central Province comes from the service sector which is around 50 percent. The industrial sector generates little above 25% whereas the agricultural sector being the least contributing sector generates about 20% of the provincial GDP. However, the actual figures of all these sectors may be greater than the official figures given in the Table 2.7.

Table 2.7
Composition of GDP by Province

		Western	Central	Southern	Northern	Eastern	North Western	North Central	Uva	S'gamuwa	Island	Composition values (Rs.bn.)
Agriculture	**2009**	2.8	19.2	17.3	18.3	22.9	18.8	30.7	30.7	19.9	12.7	614
	2010	3.0	18.2	16.7	16.0	22.3	18.3	29.8	32.6	21.8	12.8	718
Industry	**2009**	33.0	27.2	32.1	9.3	33.5	29.5	19.9	20.4	25.7	29.7	1,435
	2010	31.9	28.8	34.8	14.2	29.3	30.9	20.2	19.1	24.4	29.4	1,649
Services	**2009**	64.2	53.7	50.6	72.3	43.6	51.7	49.4	48.9	54.4	57.6	2,787
	2010	65.1	53.0	48.5	69.8	48.4	50.8	50.0	48.3	53.8	57.8	3,237

Source: Press release Central Bank of Sri Lanka 2011

This is mainly because, there are small and medium size businesses that may have not registered and fallen under informal sector economic activity generates a considerable part of provincial production and employment. Constructing a provincial database is therefore an important requirement for planning and implementation of development activity. Table 2.8 shows the provincial variations in the share of GDP over the last decade. The selected provinces are the leading regions that contribute to the most for the country's GDP and employment.

Table 2.8
Composition of GDP by Economic Sector

Province	2000			2005			2010			2012		
	Agriculture	**Industry**	**Service**	**Agriculture**	**Industry**	**Service**	**Agriculture**	**Industry**	**Service**	**Agriculture**	**Industry**	**Service**
Western Province	11.78	64.27	55.87	8.25	60.03	59.38	10.58	48.68	50.49	11.35	48.35	46.89
Central Province	15.29	5.25	9.36	16.76	6.02	7.09	14.17	9.78	9.26	13.99	9.03	9.42
Southern Province	18.53	5.06	8.33	16.29	7.33	7.44	13.97	12.52	9.03	13.61	12.29	10.66
North Western	15.17	12.26	7.73	12.50	10.09	7.19	13.59	9.84	8.50	12.67	9.20	9.27

Source: Central Bank Report 2011

According to the socio-economic data of the Central Bank of Sri Lanka the Western Province has been the leading province in terms of contribution to the share of GDP since 2000. This is mainly because of its urban industrial base that caters to the much of the value adding services and production. However, its share from agriculture as usual remains low. Another important feature that can be observed from the time series data is the fast growing industrial sector in the Southern Province. For example, the growth of industrial sector in the Central Province has been 12.5% and 5.8% for the years 2010 and 2011 respectively whereas the respective figures for the same period has been recorded as 26% and 23% in the Southern Province. The North Western Province is also a rapidly growing province. Therefore, it is imperative for policymakers and practitioners to draw attention to raise the competitiveness of the Central Province strategically to compete with fast growing Southern Province and North Western Province.

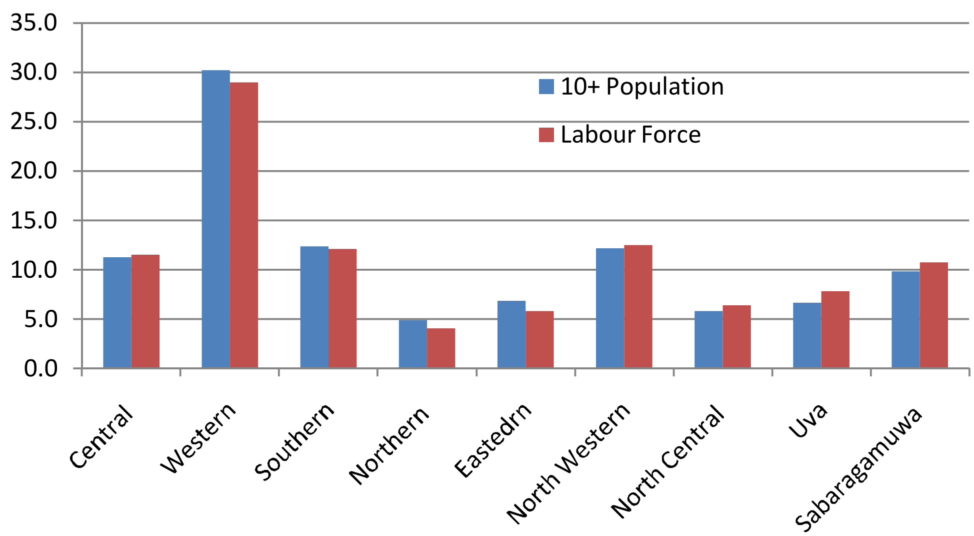
2.5 Labour Force, Employment and Unemployment

2.5.1 Labour Force and Labour Force Participation

In year 2012, household population of age 10 years and above of Sri Lanka was 17.92 millions. About 11% of this household population of age 10 years and above was in the Central Province (see Figure 2.6). About 12% of 8.5 million of total labour force of the country in the Central

Province. Central Province comes fourth in the relative size of household population and labour force after Western, Southern North Western provinces. Table 2.8 provides details of household population (10 years and above), total number of labour force and labour force participation rate of Kandy, Matale and NuwaraEliya districts, Central Province, Western Province and Sri Lanka in 2012.

Figure 2.6
Distribution of Population and Labour Force by Province, 2012



Source: Labour Force Survey, Annual Report, 2012, Department of Census and Statistics

Kandy, Matale and NuwaraEliya districts account for 6%, 2% and 3% of total household population of the Central Province respectively. The distribution of household population by sex in the Central Province skews more towards females (54%) than the Western Province and the country shares of female household population (about 53%). The total labour force of the Central Province in 2012 was about one million, 12% of Sri Lanka's total labour force. The percentage distribution of labour force is very similar to the distribution of household population in Kandy, Matale and NuwaraEliya districts. Out of total labour force of the province, 62% are males and 38% are females. This gender composition of labour force of the province is markedly different from that of the Western Province (68 and 32 % respectively) and Sri Lanka average (67 and 33 % respectively). The female share of the labour force is significantly high in the Central Province. Within the province, there is a significant difference in gender division of the labour force by districts. Female share of labour force in NuwaraEliya districts is quite high (42%) compared to that of Kandy (37%) and Matale (34%).

The labour force participation rate of the Central Province is one percentage point higher than that of country average and two percentage points higher than that of the Western Province in 2012. Thus, the Central Province reported relatively high labour force participation rate. Within the province, NuwaraEliya and Matale districts show a higher labour force participation rates (53% and 50%) respectively while that of Kandy (45%) is much below the Central Province average and the country average. Labour force participation of males in the Central Province is slightly less than the country average. On the other hand females in the Central Province show a high (34%) labour force participation rate than that of Sri Lanka (30%) and the Western Province (28%). Labour force participation among females is exceptionally high in NuwaraEliya district (42%) and is also above the country, Western Province and averages in Kandy and Matale districts. This is because of high female labour use in the plantation sector in the district.

Table 2.9
Population, Labour Force and Labour Force Participation Rate, 2012

	Household population (10 years & above) (% of hh population)			Labour force (% of total labour force)			Labour force Participation Rate %		
	Total (No.)	Male %	Female %	Total (No.)	Male %	Female %	Both %	Male %	Female %
Kandy	1,086,796	45.4	54.5	490,678	63.3	36.7	45.1	62.9	30.4
Matale	390,063	46.3	53.7	195,500	65.5	34.5	50.1	70.9	32.2
NuwaraEliya	545,472	46.7	53.3	290,354	58.1	41.9	53.2	66.2	41.9
Central Province	2,022,331	45.9	54.1	976,532	62.2	37.8	48.3	65.4	33.8
Western Province	5,414,658	47.3	52.7	2,454,645	67.7	32.3	45.7	65.3	27.9
Sri Lanka	17,915,383	47.1	52.9	8,464,706	66.6	33.4	47.2	66.6	29.9

Source: Labour Force Survey, Annual Report, 2008 and 2012, Department of Census and Statistics.

2.5.2 Employment

According to 2012 Labour Force Survey of Department of Census and Statistics, about 93%, 97% and 98% percent of total labour force in districts of Kandy, Matale and NuwaraEliya are employed. This leads to a 95% employment rate of the Central Province which is slightly less than that of the Western province (96.5%) and the country (96%).

Table 2.9 shows the distribution of employed persons by major economic sectors in years 2008 and 2012. In 2012, percentage distribution of employed persons in the Central Province was as follows: agriculture 40%, industry 20% and service sector 40%. This employment distribution among sectors is different from that of Sri Lanka and the Western Province. In 2012, out of total employed persons of Sri Lanka 31% was in agriculture, 26% wasin industry and 43% was in service sector. Compared to the country averages, relatively more Central Province workers are engaged in agriculture and less workers are engaged in the industrial sector. When it compared with Western province figures, dominance of agricultural sector employment is much obvious in the Central Province. Agriculture accounts for only eight percent of total employment in the Western Province while Industry accounts for 34% and service sector accounted for 58%. Both industry and service sectors provided jobs for 92% of employed persons in the Western Province while those two sectors provided jobs for only 59% of employed persons in the Central Province.

Table 2.10
Distribution of Employed Persons by Main Sectors, 2008 and 2012

	2008				2012			
	Agriculture	Industry	Services	Total	Agriculture	Industry	services	Total
	%	%	%	No	%	%	%	No
Kandy	27.5	26.9	45.6	444,952	23.0	26.5	50.5	455,326
Matale	46.9	15.7	37.4	168,427	43.0	17.9	39.1	190,082
NuwaraEliya	67.4	8.9	23.7	325,666	67.4	10.8	21.8	284,998
Central Province	44.8	18.7	36.5	939,046	40.4	20.2	39.4	930,407
Western Province	7.9	35.2	56.9	2,295,060	8.3	34.1	57.6	2,369,799
Sri Lanka	32.6	26.2	41.2	7,648,305	31.0	26.1	42.9	8,128,704

Source: Labour Force Survey, Annual Report, 2008 and 2012, Department of Census and Statistics

There is a significant difference in the distribution of employment by sectors among the three districts in the Central Province. In Kandy, service sector is the dominant sector (nearly 51%) of the economy while agriculture and industry sectors account for 23% and 26% of the district's total employment. In Matale, agriculture (43%) and service sector (39%) employed most of the workers and industrial work force is only about 18% of total employment. Agricultural sector employs more than 67% of total employed persons in Nuwara Eliya district. This is because of the dominance of plantation sector in the district. Service sector employs another 22% of the total employed persons. Industrial employment is limited to 11% of total employment in NuwaraEliya district.

The shares of industrial and service sector employment to total employment in Kandy, Matale and Nuwara Eliya are 77%, 57% and 33% respectively. The district-wise composition of employment among agriculture, industry and services sectors is useful in planning for the provision of labour training programmes in the province. Table 2.9 also shows that relative share of agriculture employment in the Central Province has declined from 2008 to 2012. In Kandy, the service sector employment has increased rapidly over the five year period from 2008 to 2012. Both Industrial and service labour force has increased in Matale while industrial employment has increased in Nuwara Eliya district during the period.

Table 2.11

Distribution of Employed Persons by Occupation Group, 2008 and 2012

Occupation Group		**Central Province**				**Western Province**		**Sri Lanka**	
		2008		**2012**		**2012**		**2012**	
		No.	%	No.	%	No.	%	No.	%
1	Senior officers and managers	10,812	1.2	7,644	0.8	103,645	4.4	143,877	1.8
2	Professionals	50,609	5.4	52,191	5.6	199,017	8.4	516,673	6.4
3	Technical and associate professionals	45,666	4.9	37,957	4.1	189,891	8.0	461,096	5.7
4	Clerks	31,939	3.4	40,545	4.4	158,854	6.7	359,444	4.4
5	Proprietors and managers of enterprise	48,692	5.2	50,567	5.4	84,474	3.6	309,827	3.8
6	Sales and service workers	63,957	6.8	55,354	5.9	316,374	13.4	876,891	10.8
7	Skilled agricultural and fishery workers	225,877	24.1	178,827	19.2	137,826	5.8	1,745,344	21.5
8	Craft and related workers	119,608	12.7	119,659	12.9	448,369	18.9	1,378,561	17.0
9	Plant and machine operators and assemblers	44,836	4.8	66,876	7.2	300,022	12.7	701,962	8.6
10	Elementary occupations	297,049	31.6	318,441	34.2	417,364	17.6	1,590,816	19.6
	Total	939,045	100.0	930,406	100.0	2,369,799	100.0	8,128,704	100.0

Source: Labour Force Survey, Annual Report, 2008 and 2012, Department of Census and Statistics

Table 2.11 gives the distribution of employed persons by occupation groups. As given in the Labor Force Survey, we identify 10 categories of employment groups. The distribution of employed persons by occupation groups of the Central Province in 2012 is compared with that of the Western Province which is the most industrialized/developed province in Sri Lanka. In the Central Province about 34% of the total workers are employed in elementary occupations. The employment share of elementary occupations in the Western Province is about 18% in the same year. Another 19% of Central Province employees are working as skilled agricultural and fishery workers while that of the Western Province is about 6%. These two categories together accounted for 53% of total employment in the Central Province, while they accounted for only about 24% of the Western Province total employment. Only 47% of the total workers in the Central Province are engaged in works other than elementary occupations and agriculture and fishery.

Of total employment of the Central Province, 13% are craft and related workers (that in Western Province is 19%), 7% are plant and machinery operators and assemblers (that in Western Province is 13%), 6% are sales and service workers (that in Western Province is 13%), 6% are professionals (that in Western Province is 8%), 5% are proprietors and managers of enterprise (that in Western Province is 4%), 4% are clerks (that in Western Province is 7%), 4% are technical and associate professionals (that in Western Province is 8%) and 1% are senior officers and managers (that in Western Province is 4%).

Interestingly, Central Province employment shares of occupations such as senior managers, professionals, technical and associated professionals, sales and service workers, skilled agricultural and fishery workers, craft and related workers and plant and machine operators and assemblers are less than the country averages too. On the other hand, the country average of elementary occupations is less than 20% while that of Central Province is above 34%. This indicates that trained and skilled workers are relatively less in the Central Province work force. The problem seems severe if we compare distribution of employed persons by occupation category of the Central Province in 2008 and 2012. The employment share of elementary occupations has increased from 32% to 34% during the period. Employment shares of senior officers and managers, technical and associate professionals, sales and service workers and skilled agricultural and fishery works have declined during the period. Therefore, it seems that skills levels of the Central Province workforce need to be improved.

Table 2.12 describes the distribution of employment of the Central Province by industry groups. In the province, agriculture, forestry and fishery is the dominant industry in terms of number of persons employed. This sector employs more than 40% of the total employment of the province. The employment share of the province is very high compared to that of the Western Province (8%) and Sri Lanka (31%). Manufacturing employment share of the Central Province (12.5%) is twice less than that of the Western province (26%). Further, employment shares of wholesale & retail trade and repair of motor vehicles, motor cycles and personal & household goods; transport, storage and communication; financial intermediation, real estate, renting and business activities; and education sectors are clearly less than the country and the Western Province averages. The distribution of employed persons by industry groups again reveals that skill level of the employment structure is less in the Central Province. A low skilled workforce may result in the dominance of agricultural and elementary occupations in the province. On the other hand the dominance primary economic activities require less amount of skilled labour in the province.

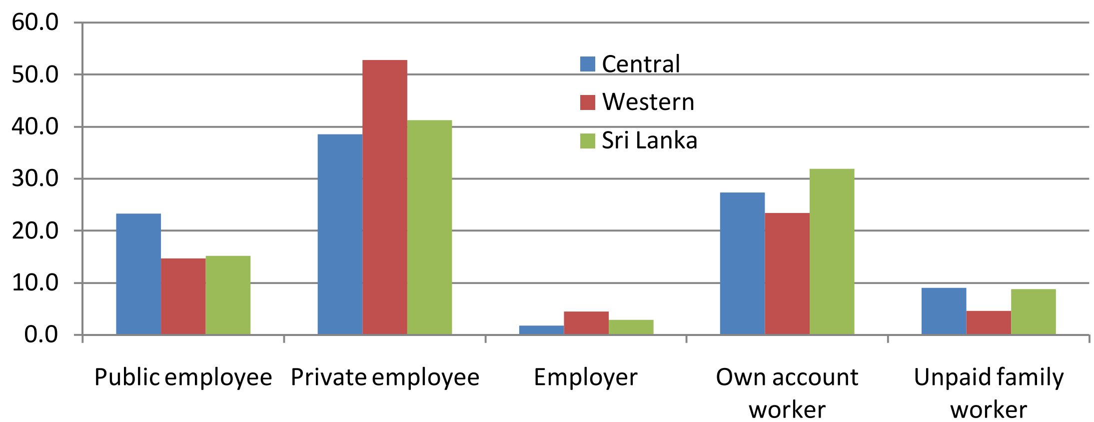
Table 2.12
Distribution of Currently Employed Persons by Industry, 2008 and 2012

Industry Group		Central Province				Western Province		Sri Lanka	
		2008		2012		2012		2012	
		No	%	No	%	No	%	No	%
1	Agriculture, forestry and fishery	420,564	44.8	376,538	40.5	197,608	8.3	2,519,271	31.0
2	Manufacturing	117,168	12.5	116,495	12.5	613,129	25.9	1,437,457	17.7
3	Construction, mining & quarrying, electricity, gas and water supply	58,007	6.2	71,282	7.7	193,987	8.2	681,587	8.4
4	Wholesale & retail trade and repair of motor vehicles, motor cycles and personal & household goods	112,934	12.0	111,186	12.0	439,084	18.5	1,138,693	14.0
5	Hotels and restaurants	16,114	1.7	16,365	1.8	52,096	2.2	130,791	1.6
6	Transport, storage and communication	39,955	4.3	55,739	6.0	223,628	9.4	525,989	6.5
7	Financial intermediation and real estate, renting and business activities	17,409	1.9	24,177	2.6	144,402	6.1	283,083	3.5
8	Public administration and defense, compulsory social security	54,497	5.8	75,056	8.1	173,716	7.3	567,081	7.0
9	Education	37,564	4.0	26,585	2.9	105,050	4.4	335,194	4.1
10	Health and social work	13,861	1.5	9,576	1.0	49,730	2.1	135,389	1.7
11	Other community, social and personal service activities, extra territorial organizations & bodies	12,052	1.3	11,621	1.2	84,177	3.6	162,345	2.0
12	Private households with employed persons			7,017	0.8	61,135	2.6	94,021	1.2
13	Miscellaneous labour work	33,837	3.6	28,769	3.1	32,057	1.4	117,296	1.4
	Total employment	939,045	100.0	930,406	100.0	2,369,799	100.0	8,128,704	100.0

Source: Labour Force Survey, Annual Report, 2008 and 2012, Department of Census and Statistics

Figure 2.7 provides a comparison of employed persons of the Central Province with that of Western Province and country averages by employment status. Total number of employees are divided into five categories as public employees, private employees, employers (who has at least one paid employee under them), own account workers (who carry out the economic activity without having any paid employees) and unpaid family workers. Out of total employment in the province, 39% are private employees, 27% are own account workers, 23% are public employees. Only 2% of total employed persons run their business and provide employment for others. In the Central Province, the share of public employees is relatively high compared to that of Western Province and Sri Lanka. While the Western Province and the country share of public employees to respective total employed persons is around 15%, the Central Province public employees' share is high as 23% of its total employment. On the other hand, the share of private sector employees (38%) is markedly low in the Central Province compared to that of the Western Province (53%) and the country average (41%). The Central Province also has relatively less employers compared to both the Western Province and the country. The employment share of unpaid family workers is higher in the province than the Western Province and is in par with the country average.

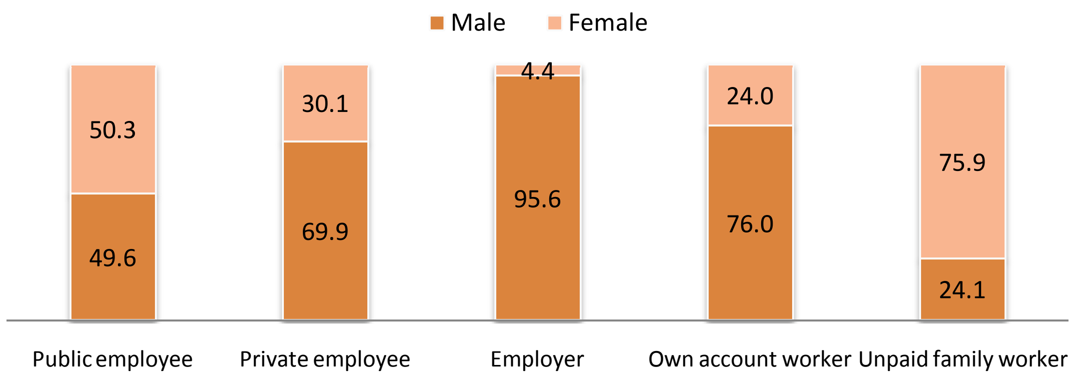
Figure 2.7
Distribution of Employed Persons by Employment Status, 2012



Source: Labour Force Survey, Annual Report, 2012, Department of Census and Statistics

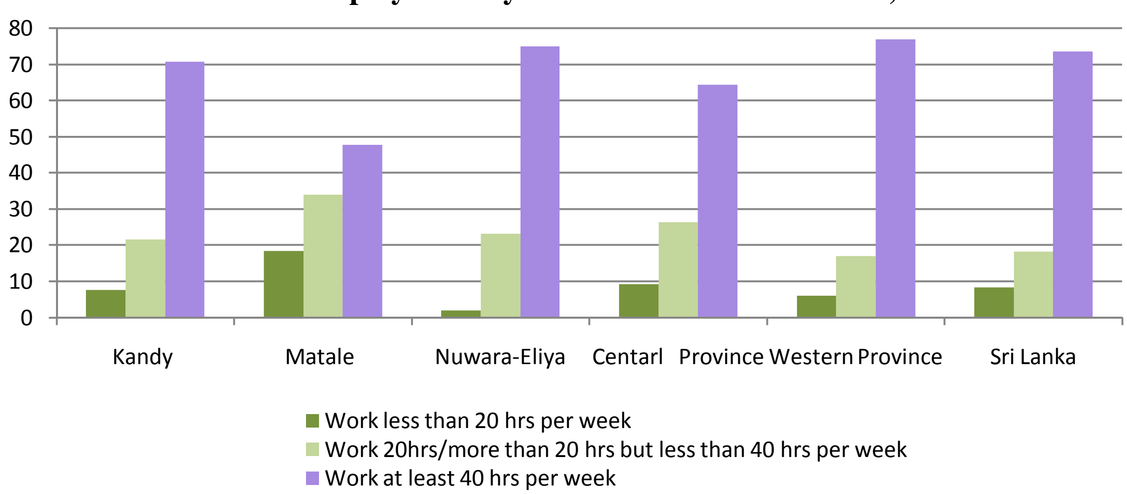
The Central Province has high employment share of own account workers than the Western Province though it is less than the country average. As given in Figure 2.8, male dominance is markedly high in employer, private employee and own account worker categories. In employer category, about 96% are males while in private employee and own account worker category males share 70% and 76% of total employment. Female dominance is exceptionally high in unpaid family worker category (76%) and marginally high in public employee category. About 84 thousand of workers (9% of total employment) are engaged in unpaid family works and majority of them are females.

Figure 2.8
Distribution of Employment by Status and Gender, Central Province 2012



Source: Labour Force Survey, Annual Report, 2012, Department of Census and Statistics

Figure 2.9
Distribution of Employment by Number of Hours Worked, in a Week 2012



Source: Labour Force Survey, Annual Report, 2012, Department of Census and Statistics

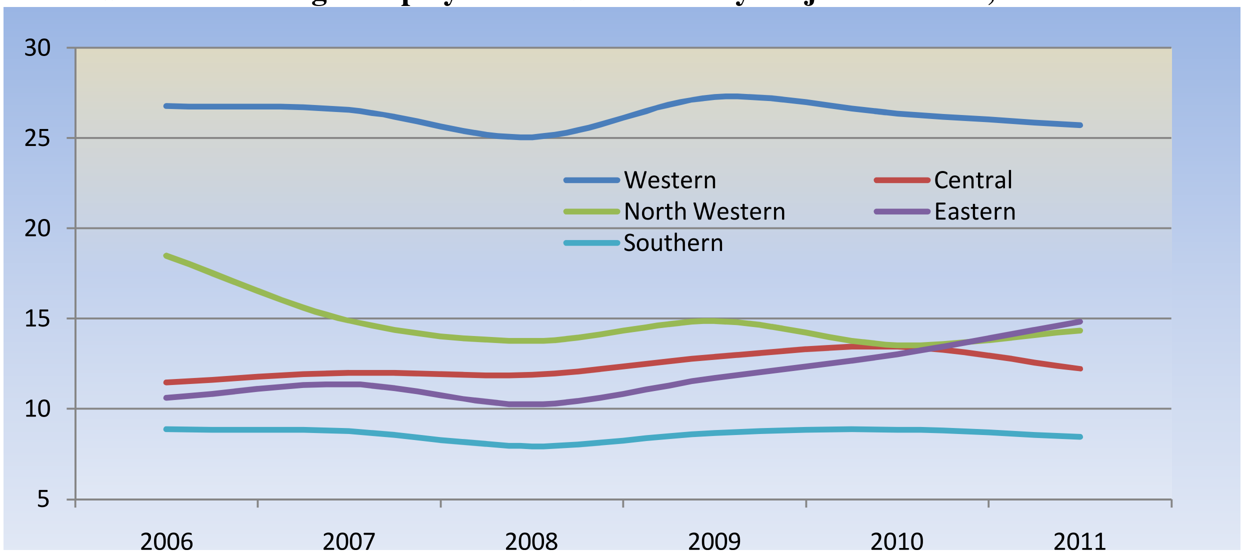
Figure 2.9 gives the percentage distribution of total employed persons by actual number of hours worked during a week. In one definition used in the Labour Force Survey, a person who works at least one hour during the reference week is considered employed. However, it seems that working one hour in a week is too low to consider as employed. In another definition used in the same survey, a person who works 20 hours or more per week is considered employed. We use labour Force Survey data to separate employed persons into few categories based on number of hours actually they worked: work less than 20 hours in a week, work in between 20 hours and 40 hours in a week and work at least 40 hours in a week. Considering 8 hours of a working day, a person is fully employed if she/he works at least 40 hours in a week. If a person works less than 20 hours a week, he/she be considered as 'underemployed'.

About 73% of total employed persons in Sri Lanka worked at least 40 hours during a week. In the Central province this rate is ten percentage points below the country average. This is due to a significantly low fully employed rate in Matale district (48%). Percentage of employed persons who worked at least 40 hours during a week in Kandy district (71%) is also slightly below the country average while that of Nuwara Eliya (75%) is above the country average. The underemployed percentage of workers in Kandy, Matale and NuwaraEliya districts are: 29, 52 and 25 respectively. These figures can be compared with all country underemployment rate of 26 percent. Underemployment in terms of number of hours worked is severe in Matale district. In Matale, not only 52% of employed persons worked less than 40 hours per week but 18 percent of employed persons actually work less than 20 hours per week.

2.5.3 Foreign Employment

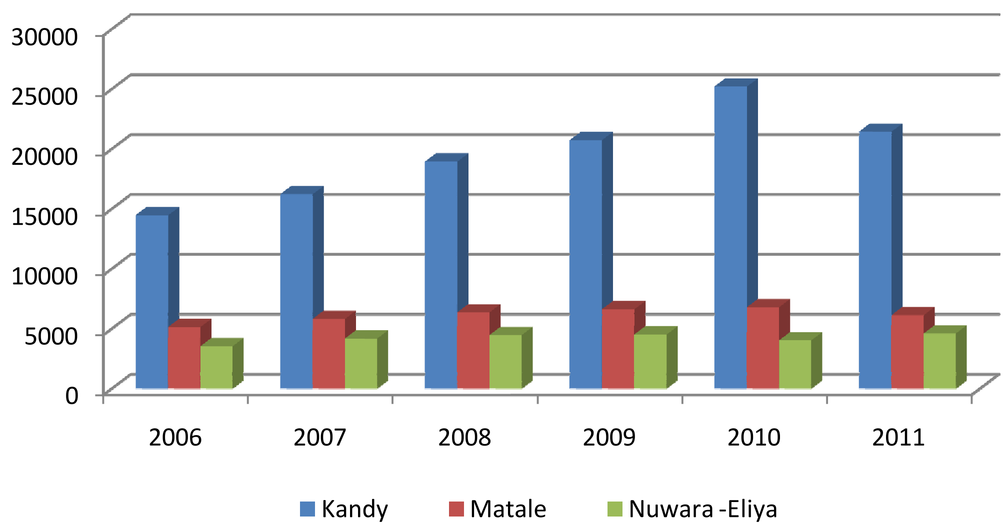
From 2006 to 2011 period, the Central Province has accounted for more than 12% of the total foreign employment of Sri Lanka. This share has gradually increased from 11.45% in 2006 to 13.5% in 2010 (see Figure 2.10). In 2011 it showed a slight decline but that might be due data issue as data available for 2011 are provisional. Until 2010, the Central Province was the third in terms of the share of foreign employment after Western Province and the North Western Province. A consistent increase in the foreign employment share of the Eastern Province and a decline in the foreign employment share of the Central Province in 2011 lowered its rank to the fourth among all provinces in Sri Lanka.

Figure 2.10
Shares of Foreign Employment of Sri Lanka by Major Provinces, 2006-2011



Source: Annual Statistical Report of Foreign Employment, 2011. Sri Lanka Bureau of Foreign Employment

Figure 2.11
Foreign Employment Distribution of Central Province by District, 2006-2011
(Number of Persons Departed)



Source: Annual Statistical Report of Foreign Employment, 2011. Sri Lanka Bureau of Foreign Employment

Figure 2.12 gives the number of persons departed for foreign employment in Kandy, Matale and Nuwara Eliya districts during 2006-2011. In 2006, about 14,466 persons from Kandy district left the country for foreign employment. By 2010, this number has gradually increased to 25,201 persons though it is slightly less in 2011. Kandy district's share of total foreign employment is 8 percent of total foreign employment and it comes fourth in terms of contribution to foreign employment after Colombo, Kurunegala and Gampaha districts in 2011. But the number of persons went for foreign employment from Matale and NuwaraEliya districts increased slowly during 2006-2011 period. The shares of foreign employed persons from Matale and Nuwara Eliya districts to total foreign employment of Sri Lanka are 2.3% and 1.7% respectively.

Table 2.13 gives the skill content of foreign employed persons. Sri Lanka Bureau of Foreign Employment has use the division of skill content as professionals, middle level, clerical and related, skilled, semi-skilled and unskilled workers. Housemaids and unskilled workers are categorized separately. About 1.5% of Sri Lanka's total foreign employment belongs to the category of professionals. The share of professionals in foreign employed persons in the Western Province amounts to 3% while that of the Central Province amounts to 1.4%. Therefore, the Central Province share of professionals in foreign employment is significantly less than the Western Province and below the country average as well. In the Central Province, Kandy reports relatively higher share (1.6%) of professionals in foreign employment while that of Matale and NuwaraEliya is very low. The share of middle-level workers of the Central Province is in par with the country average but twice less than the Western Province share (4%). There is no significant difference in the share of middle level workers of foreign employment in the three districts of the province. Out of total foreign employment of the province about 4% went for clerical and related jobs and it is again quite similar to the country average but significantly less than the Western Province average (6%). The shares of clerical related foreign jobs in Kandy, Matale and NuwaraEliya are 4%, 3% and 2.6% respectively.

About 26% of Sri Lanka's foreign employment finds overseas jobs as skilled workers. This share is 23% in the Central Province and 28% in the Western Province. Thus, the Central Province share of skilled foreign employment in total foreign employment is relatively less, especially compared to the Western Province share. However, out of total foreign employment of Kandy district 25% finds foreign jobs as skilled workers. The shares of skilled foreign employment to total foreign employment in Matale and NuwaraEliya districts are 21% and 18% respectively. The foreign employment of semi skilled workers of the Central Province is not very different from that of the Western Province and Sri Lanka.

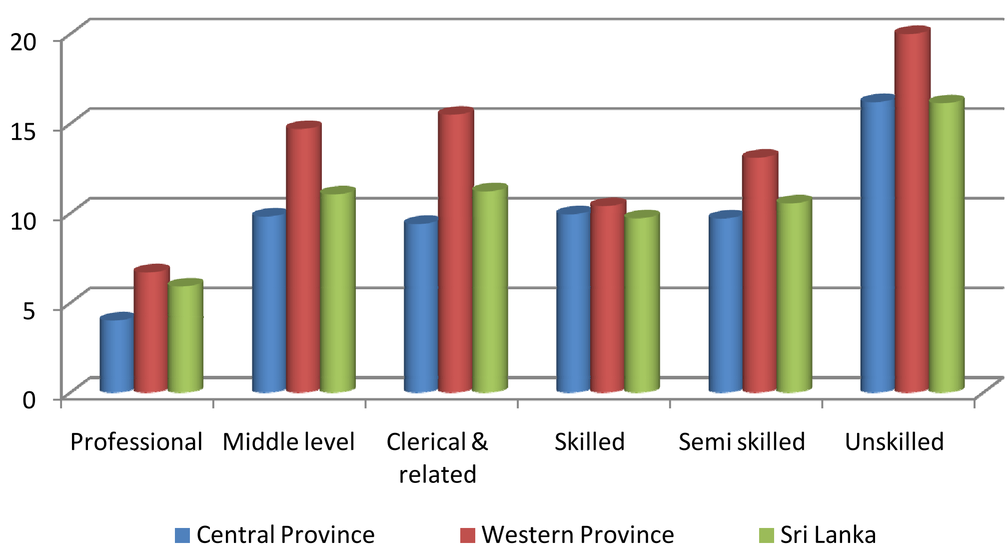
About 24% of Sri Lanka's foreign employed persons find job as unskilled workers. Central Province and Western Province shares of unskilled workers are very close to the country average. About 41% of the country's total foreign employment work as housemaids. The share of housemaids from the total foreign employment of the Central Province is 46%, which is 3 percentage points higher than the Western Province. About 60% out of total foreign employment of Nuara Eliya district is housemaids. Housemaids accounted for 50% and 42% total foreign employment of Matale and Kandy districts.

Table 2.13
Distribution of Foreign Employment by Manpower Level, 2011

	Professional	Middle Level	Clerical & related	Skilled	Semi-skilled	Unskilled	Housemaid	Total
Kandy	1.6	2.3	4.2	24.9	2.4	22.9	41.8	21,435
Matale	1.1	1.5	3.0	21.4	1.7	21.1	50.2	6,126
NuwaraEliya	0.8	1.7	2.6	18.0	1.1	16.1	59.7	4,592
Central province	1.4	2.1	3.7	23.2	2.0	21.6	45.9	32,153
Western Province	3.0	4.0	6.1	28.1	2.4	23.4	33.0	67,586
Sri Lanka	1.5	2.3	3.8	25.7	1.6	24.1	41.0	262,960

Source: Annual Statistical Report of Foreign Employment 2011, Sri Lanka Bureau of Foreign Employment

Figure 2.12
Female Share (%) of Foreign Employment of Central Province, 2011



Source: Annual Statistical Report of Foreign Employment 2011, Sri Lanka Bureau of Foreign Employment

Both unskilled workers and housemaids accounted for 68% of total foreign employment of the Central Province. This share is high compared to the Western Province (56%) and the whole country (65%). The share of unskilled workers and housemaids of total foreign employment is 76% in NuwaraEliya, 71% in Matale and 65% in Kandy. These numbers show that the skill content of the foreign employment of the Central Province is relatively low. Figure 2.13 gives the female share of foreign employment in Central and Western Provinces and Sri Lanka. Compared to the Western Province and to the all country averages, the Central Province reports low female contribution to foreign employment under each manpower level.

2.5.4. Unemployment and Underemployment

The unemployment rate in the Central Province is about 5% while that of all country is 4% according to Labour Force Survey 2012. It shows that the Central Province has a relatively high unemployment. The unemployment rate of Kandy is high as 7% while that of Matale and NuwaraEliya are around 3 and 2% respectively though unemployment rate figures of Matale and NuwaraEliya districts are less reliable. The unemployment among females in the Central Province is around 7% compared to the province unemployment rate (3%) among males. The unemployment among females in Kandy district is very high (13%) compared other districts in the province and the national average.

The real unemployment rate in the province may be higher than the revealed unemployment rate as about 5.4% of total employed persons did not work a single hour during the reference week of the survey (see Table 2.14). This rate is more than 8% in Matale. As discussed in the employment section, the number of employed persons who do not work 20 hours during a week amount to 9% of total employed persons in the province. These rates are much higher than the Western Province average and the country average. Thus, underemployment/near unemployment may be a serious issue in the Central Province.

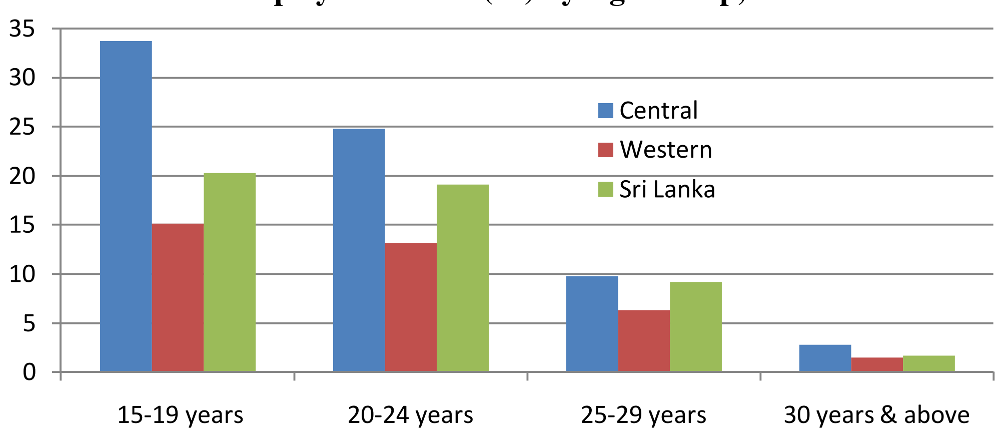
Figure 2.13 gives the age distribution of unemployment rate as given in Labour Force Survey 2010. About 37% of youths aged 15-19 years in the Central Province are unemployed. The unemployment rate among youths in between age 15-19 is 20% for the whole country and 15% for the Western Province. The unemployment among youth age 20-24 years is also high (25%) compared to the country average (19%) and the Western Province average (13%). The unemployment rate among youth in between 25-29 years of the Central Province is 10% which is 4 percentage points higher than that of the Western Province. Thus, youth unemployment of the Central Province is quite high compared to the Western Province and national average.

Table 2.14
Underemployment and Unemployment, 2012

	Number employed persons who has no workduring the reference week as % of labour force	Under employment rate (employed persons work less than 20 hours per week as % of labour force)	Unemployment rate (unemployed persons as a % oflabour force)	Unemployment rate (% of labour force	
				Male	Female
Kandy	4.1	7.7	7.2	3.9	12.9
Matale	8.1	18.4	2.8*	2.7*	2.9*
NuwaraEliya	0.6	1.9	1.8*	2.1*	1.6*
Central Province	5.4	9.3	4.7	3.2	7.3
Western Province	2.9	6.1	3.8	3.1	4.5
Sri Lanka	4.1	8.3	4.0	2.8	6.2

* Survey states that the reliability of figures is less and be treated with caution.
Source: Labour Force Survey, Annual Report, 2012, Department of Census and Statistics

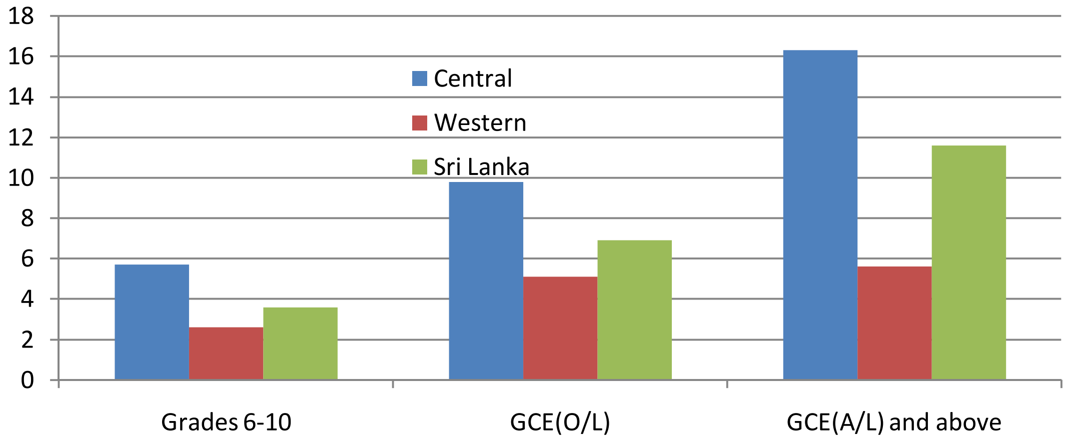
Figure 2.13
Unemployment Rate (%) by Age Group, 2010



Source: Labour Force Survey Annual Report, 2010, Department of Census and Statistics

According to Figure 2.14, about 6% of youth who received education up to grade 6-10, about 10% of youth who education up to GCE (O/L) and about 16% of youth who received education up to GCE (A/L) or above are unemployed in the Central Province. Unemployment rate among people with above three levels of education are: 2.6%, 5.1% and 5.6% in the Western Province and 3.6%, 6.9% and 11.6% in Sri Lanka. Thus the Central Province has very high unemployment rate among A/L and above, O/L and grades 6-10 education levels. This indicates that unemployment among the educated youth is absolutely high in the Central Province.

Figure 2.14
Unemployment Rate (%) by Level of Education, 2010



Source: Labour Force Survey Annual Report, 2010, Department of Census and Statistics

2.6 Components of Household Income, Income Distribution and Poverty

2.6.1 Household Income, Expenditure and Savings

In Table 2.15, the average (monthly) income of households and average of per capita (monthly) income of the Central Province are compared with the averages of the Western Province and Sri Lanka. In 2009/10, the average monthly household income of the Central Province was about 32 thousand rupees. Compared to the Western Province, the Central Province average income was 15 thousand rupees or 32% less. Compared to the average household income of Sri Lanka, the Central Province average income was about four thousands or 13% less. The average household income of Kandy was slightly higher than the Central Province average. But the average household income of Matale and Nuwara Eliya were less than the province average. Compared to the Western Province, the average household incomes of Kandy, Matale and Nuwara Eliya districts were less by 30%, 36% and 34% respectively. Compared to the average household income of Sri Lanka, the average household income of these districts were less by 9%, 18% and 15% respectively. As is given in Table 2.15, monthly average percapita income of the Central

Province is also 12% less than the average percapita income of Sri Lanka. It is less than the Western Province average percapita income by 31%. Kandy reports a higher while Matale and NuwaraEliya report a lower percapita income than the Central Province. Average percapita income of Kandy, Matale and Nuwara Eliya are less than the Western Province average by 28%, 31% and 34% respectively and the country average by 9%, 13% and 16% respectively. Thus, average income of the households in the Central Province is relatively lower.

The Household Income and Expenditure Survey (2009/10) reports that monthly average household expenditure of Sri Lanka was 31,331 rupees. The monthly average income of the Western Province was about 42,400 rupees while that of the Central Province was about 28,300 rupees. The Central Province average household expenditure is below the country average by 10% and the Western Province average by 33%. The average household expenditure of Kandy, 29,767 rupees, is higher than the Central Province average but less than the country average by 10% and the Western Province average by 30%. The average household expenditure of Matale is less than the country average by 15% and the Western Province average by 38%. Similarly, the average household expenditure of Nuwara Eliya district is less than the country and the Western Province averages by 14% and 37% respectively. This again is the relatively less income of households in the Central Province.

Table 2.15
Mean Income, Expenditure and Savings of Households, 2009/10

	Monthly average of household income (Rs) (a)	Monthly average of per capita income (Rs) (b)	Monthly average of household expenditure (Rs) (c)	Monthly average of household savings (Rs) (a)-(c)
Kandy	33,063	8,285	29,767	3,296
Matale	30,013	7,930	26,528	3,485
Nuwara Eliya	31,029	7,667	26,841	4,188
Central Province	31,895	8,040	28,308	3,587
Western Province	47,118	11,561	42,399	4,719
Sri Lanka	36,451	9,104	31,331	5,120

Source: Household income and expenditure survey, 2009/10

Since both household income and expenditure levels are less, the province has a relatively low household savings too. The average household savings of Sri Lanka is little above five thousand rupees per month. Interestingly, both the Central Province and the Western Province average savings are below the country average. In the Central Province, NuwaraEliya district reports a higher average saving rate, savings as percent of household income, (13%) than Matale (12%) and Kandy (10%). The average saving rate of the Central and the Western Provinces and Sri Lanka are 11%, 10% and 14% respectively. Though the household saving rate of the Central Province is slightly higher than that of the Western Province, it is significantly less than the average savings rate of the country.

2.6.2 Income Distribution and Poverty

Table 2.16 gives the distribution household income by different percentiles of income levels and the Gini coefficient of average household income. We compare the percentage of income distributed among the richest 20%, middle income 60% and the poorest 20% of the population. The Central Province also witnessed the same severity in income distribution inequality as of Sri Lanka. About 53% of total income of the province is shared among the richest 20% of people. Though this share is slightly less than the average of Sri Lanka, it is still absolutely high. On the other hand, poorest 20% of the population of the province received only 4.4% of the total income. This figure is in par with the average of Sri Lanka but less the average of the Western Province. Though it is true for the whole country that poor is much poor, Nuwara Eliya district shows somewhat improved situation as nearly 6% of the district's income is distributed among poorest 20% and the share of richest 20% is also relatively less. This is shown by the Gini coefficient as well: The Gini coefficient of average household income of Nuwara Eliya district is 0.45 while that of Matale and Kandy are 0.50 and 0.49 respectively.

Table 2.16
Income Inequality, 2009/10

District/Province	Percentage distribution of household income Distribution			Gini coefficient of average household income
	Richest 20%	Middle 60%	Poorest 20%	
Kandy	53.4	42.7	3.9	0.49
Matale	55.0	40.8	4.2	0.50
Nuwara Eliya	51.3	42.9	5.8	0.45
Central Province	53.4	42.2	4.4	0.48
Western Province	53.3	41.7	5.0	0.47
Sri Lanka	54.1	41.4	4.5	0.49

Source: Household income and expenditure survey, 2009/10

Table 2.17
Poverty Measurement, 2009/10

	Head Count Index (%)	Poor household share (%)	Poverty Gap Index (%)
Kandy	10.3	8.3	2.2
Matale	11.4	9.3	2.0
Nuwara-Eliya	7.6	7.1	1.0
Central province	9.7	8.2	1.8
Western province	4.2	3.0	0.8
Sri Lanka	8.9	7.0	1.7

Source: Household income and expenditure survey, 2009/10

As given in Table 2.17, the extent of poverty is relatively high in the Central Province compared to the Western Province and the Sri Lanka. All measures of poverty confirm higher degree of poverty in the province. Within the province, NuwaraEliya district has a lesser degree of poverty. Its poverty indicators show improved conditions than the Central Province, the Western Province and the all country averages. However, all poverty measures given in Table 2.17 indicate a high degree of poverty in Matale and Kandy districts than the general situation in Sri Lanka. The extent of poverty in these two districts is severe than the poverty of the whole country.

2.7 Education

Sri Lankan education system consists of primary, secondary, and tertiary levels including well-established higher education system which is basically the legacy of British system. Modern educational changes, however, taken place in the Western Countries, mainly United States, are decidedly influential at all levels of education in Sri Lanka, especially at university education. Sri Lanka maintains 'free education for all policy' whereas the private sector education is mushrooming as recent phenomenon which is debated at all political and societal forums. The total student population in Sri Lanka is more than 4.0 million, which is nearly 20% of the total population. There are more than 9,900 government schools scattered throughout the country, categorized as *national* (342) and *provincial* (9,563) schools. Though the country boasts higher educational attainment such as high literacy rate (94%), the physical conditions and quality of education in majority of schools are substandard compared to developed countries and recently developed nations in general. Further, due to financial constraints, government is not able to enroll all GCE A/L qualified students to national universities creating a massive unrest among the aspiring youth in the country. Further, it is highly competitive to enter university, for example, only 20% of the qualified students are able to obtain placements at national university system which includes only 15 universities. This portion is approximately 7% (approximately 22,000 annual intake) of the students appearing for the GCE (A/L) examination (approximately 350,000). As a result, Sri Lanka presently enrolls about 100,000 youths at higher educational institutes whereas Australia having an identical population that of Sri Lanka has registered more than 1.2 million students including 350,000 foreign students. The present scenario of school education and tertiary including higher education in Sri Lanka requires the highest attention from the policy makers, administrators, business leaders and general public.

2.7.1 Literacy Rate

It is well known fact that the literacy is an important indicator of human resource development as well as well-being of the people. The world has gone a further step to measure the literacy, i.e. computer literacy as well. There are different definitions employed, yet, the general underpinning is that a person who can read and write with understanding is considered as literate.

Sri Lanka maintains a high literacy rate (94% in 2012) among the developing countries due to 'free education system' adopted for more than six decades. This favorable situation has created a positive recognition on Sri Lanka by other nations among other achievements such as moderately high life expectancy (73 years), low infant mortality rate (09.47), moderately high Human Development Index (HDI – 0.69), etc. It is, however, significant that Sri Lanka is to reach the fully-fledged nation of literacy with computer and information technology, number of books read by people, number of educational programs they watch on television, the quality of the mass-media, etc. Male literacy rate (95%) is little higher than that of female (93%) due to predominant socio-cultural influence in the society in the past. Recent data, however, reveal that disparity between male and female is insignificant. Moreover, student enrollment at national universities shows that female is dominant in all faculties except the faculty of engineering. This trend is also observable in the primary, secondary and tertiary education including vocational training as a recent trend. Table 2.18 shows the main features of the literacy rates in the Central Province with Western Province and Sri Lanka.

Table 2.18
Literacy Rate by Districts and Gender – 2010

Province	District	Literacy Rate		
		Male	Female	Total
Western	Colombo	95.1	94.2	94.6
	Gampaha	95.3	94.3	94.8
	Kalutara	92.3	91.5	91.7
Central	Kandy	93.5	92.7	92.9
	Matale	89.5	87.5	88.0
	Nuwaraeliya	70.5	68.5	69.0
Sri Lanka		**93.2**	**90.8**	**91.9**

Source: Sri Lanka Education Information, Ministry of Education, 2012

2.7.2 Schools and Student Enrolment

As revealed in the socio-economic environment, the Central Province is among the highest diverse region in Sri Lanka. Three districts in Central Province, namely; Kandy, Matale and NuwaraEliya are predominantly rural and include the highest land use for tea plantation. Further, ethnic formation also reveals that this region contains the highest number of (Indian) Tamil concentration and a substantial Muslim Community among the majority Sinhala people. Topography of this area is mountainous and varied where almost all rivers in the island origin. All the factors highlighted in socio-economic description affect the school education in this Province.

Table 2.19
Number of Government Schools – 2012

Province	District	No of Functioning Schools	No of Closed Schools	Total
Western	Colombo	402	01	403
	Gampaha	531	10	441
	Kalutara	404	19	423
Total		**1,337**	**30**	**1,367**
Central	Kandy	643	14	657
	Matale	316	01	317
	Nuwara Eliya	538	02	540
Total		**1,497**	**17**	**1,514**
Sri Lanka		**9,905**	**213**	**10,118**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.19 reveals that there are 1,497 schools located in the Province and Kandy District has the highest number of schools, i.e. 643. Central Province locates more schools than Western Province, though the size of the schools is smaller.

Table 2.20 summarizes the all schools under functional grades, namely 1AB, 1C, Type 2 and Type 3. Accordingly, Sri Lanka has the highest number of schools with Type 2 and Type 3 indicating most of the schools are small and less developed with substandard facilities for secondary education. Western Province locates the highest number of 1AB schools which are regarded as substantially fully-fledged schools. Kandy District in the Central Province has 53 1AB schools while NuwaraEliya and Matale has only 31 and 18 respectively. This situation indicates the disparity of educational facilities and opportunities available for A/L subjects in all streams. Based on this information, Kandy District has the highest number of schools for A/L classes followed by NuwaraEliya District in the Central Province.

Table 2.20
Government Schools by Functional Grade - 2012

Province	District	1AB	1C	Type 2	Type 3	Total
Western	Colombo	68	84	167	83	402
	Gampaha	53	113	219	146	531
	Kalutara	41	73	177	113	404
Total		**162**	**270**	**563**	**342**	**1,337**
Central	Kandy	53	170	237	183	643
	Matale	18	69	108	121	316
	Nuwara Eliya	31	89	163	255	538
Total		**102**	**328**	**508**	**559**	**1,497**
Sri Lanka		**753**	**2,013**	**3,869**	**3,270**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Note:
1AB: Schools having Advanced Level all streams including Science Stream Classes
1C: Schools having Advanced Level Arts/or Commerce Streams but no Science streams
Type 2: Schools having classes only up to Grade 11 Classes
Type 3: Schools having classes only up to Grade 8 classes

As shown in Table 2.21, the majority of schools in Sri Lanka are provincial schools, i.e. 9,563 and only 342 are national schools. National schools are directly funded and supervised by the Ministry of Education considered to be better schools whereas provincial schools are funded and supervised by respective Provincial Councils in the island. Kandy District locates the highest number of national schools, 35 in Central Province followed by Matale, 12 and NuwaraEliya, 07 respectively. Further, Kandy District is on par with the most developed district in the island, i.e. Colombo District with respect to number of national schools. This reveals the fact that level of school education in Kandy District surpasses the other two districts in Central Province.

Table 2.21
Number of National & Provincial Schools - 2012

Province	District	No. of National Schools	No. of Provincial Schools	Total
Western	Colombo	36	366	402
	Gampaha	17	514	531
	Kalutara	18	386	404
Total		**71**	**1,266**	**1,337**
Central	Kandy	35	608	643
	Matale	12	304	316
	Nuwaraeliya	07	531	538
Total		**54**	**1,443**	**1,497**
Sri Lanka		**342**	**9,563**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.22
Number of Government Schools by Ethnicity - 2012

Province	District	Sinhala	Tamil	Muslim	Total
Western	Colombo	352	31	19	402
	Gampaha	507	04	20	531
	Kalutara	346	38	20	404
Total		**1,205**	**73**	**59**	**1,337**
Central	Kandy	462	105	76	643
	Matale	259	35	22	316
	Nuwara Eliya	231	298	09	538
Total		**952**	**438**	**107**	**1,497**
Sri Lanka		**6,826**	**2,223**	**856**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.22 indicates that the majority of schools by ethnicity is Sinhala followed by Tamil and Muslim in the island. This phenomenon prevails in all provinces except Northern and Eastern provinces where the majority is Sri Lankan Tamils. However, it is noteworthy to mention that Central Province is highly multi-ethnic than more cosmopolitan Western Province. In NuwaraEliya District there is a high concentration of (Indian) Tamil population shelters the highest number of Tamil Schools, i.e. 298. Kandy District also has a substantial number of Muslim schools, 76, revealing the fact that a high concentration of Muslim Community in the area.

As depicted in Table 2.23, majority of schools in Sri Lanka is located in rural areas. This situation resembles the dominance of rural population of 80% in the island. Western Province, on the other hand, is vastly an urban area where there is a sizeable number of schools located in urban areas, namely; 281 in Municipal Council and 142 in Urban Council areas. Central Province being a predominantly a rural setup locates more than 90% schools in rural areas. Kandy District, however, shows a diverse picture in which there are 41 schools located in the Kandy Municipal Council.

Table 2.23
Number of Schools by Local Government Area – 2012

Province	**District**	**Urban**		**Rural**	**Total**
		Municipal Council	**Urban Council**	**PradeshiyaSabha**	
Western	Colombo	235	63	104	402
	Gampaha	46	35	450	531
	Kalutara	00	44	360	404
Total		**281**	**142**	**914**	**1,337**
Central	Kandy	41	34	568	643
	Matale	18	01	297	316
	Nuwara Eliya	16	20	502	538
Total		**75**	**55**	**1,367**	**1,497**
Sri Lanka		**621**	**450**	**8,834**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.24 shows the remarkable dominance of plantation sector schools in NuwaraEliya District numbering 297 which are higher than non-plantation sector schools. Kandy District also has a fair amount of plantation sector schools, 107. Accordingly, it is possible to identify that the Central Province hosts more than 50% of the plantation sector schools in Sri Lanka due to the fact that predominant tea plantation in the region.

As revealed in Table 2.25, Sinhala medium schools are the majority followed by Tamil medium in Sri Lanka. This scenario is broken in NuwaraEliya District where the majority of schools, i.e. 305 are Tamil medium. Kandy District is also popular for Tamil medium, i.e. 170 outnumbering Matale District in Central Province and all Districts in Western Province. This scenario indicates that Central Province shelters the largest number of Indian Tamil community living in Sri Lanka, mainly in Nuwara Eliya district.

Table 2.24
Number of Schools in Plantation Sector - 2012

Province	District	No. of Non Plantation Schools	No. of Plantation Schools	Total
Western	Colombo	397	05	402
	Gampaha	531	00	531
	Kalutara	366	38	404
Total		**1,294**	**43**	**1,337**
Central	Kandy	536	107	643
	Matale	281	35	316
	Nuwara Eliya	241	297	538
Total		**1,058**	**439**	**1,497**
Sri Lanka		**9,079**	**826**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.25
Number of Government School by Medium - 2012

Province	District	Sinhala	Tamil	Sinhala & Tamil	Sinhala & English	Tamil & English	Sinhala, Tamil & English	Total
Western	Colombo	284	35	13	58	05	07	402
	Gampaha	466	21	00	39	02	03	531
	Kalutara	322	50	02	22	05	03	404
Total		**1,072**	**106**	**15**	**119**	**12**	**13**	**1,337**
Central	Kandy	414	170	06	33	09	11	643
	Matale	252	52	00	07	05	00	316
	Nuwara Eliya	215	305	05	09	03	01	538
Total		**881**	**527**	**11**	**49**	**17**	**12**	**1,497**
Sri Lanka		**6,368**	**2,914**	**39**	**403**	**152**	**29**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.26 shows that mixed schools are dominant in Sri Lankan schools education system. Districts of Colombo, Kandy, and Gampaha are popular for separate gender due to Missionary and Colonial influence on school formation in late 19th and early 20th Century. There are, however, about 336 schools which are single sex schools in Sri Lanka and majority of them located in Western Province. Colombo Municipal Council and Kandy Municipal Council due to predominant colonial influence locate the highest number of single sex schools in the island respectively.

Table 2.26
Number of Government Schools by Gender – 2012

Province	District	Boys	Girls	Mixed	Boys with A/L or Primary Girls	Girls with A/L or Primary Boys	Total
Western	Colombo	38	56	308	00	00	402
	Gampaha	11	20	500	00	00	431
	Kalutara	06	12	384	00	02	404
Total		**55**	**88**	**1,192**	**00**	**02**	**1,337**
Central	Kandy	15	22	603	00	03	643
	Matale	01	03	309	02	01	316
	Nuwara Eliya	02	05	530	01	00	538
Total		**18**	**30**	**1,442**	**3**	**4**	**1,497**
Sri Lanka		**130**	**206**	**9,521**	**12**	**36**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.27 highlights the true nature of the schools in Sri Lanka. As shown, the difficulty level of the majority of schools in Sri Lanka is more than 60%. Central Province also equals to national average. Most of the schools, 80%, located in NuwaraEliya District are not conducive for learning followed by Kandy and Matale District. On the other hand, in Western Province more than 70% schools are congenial for learning.

Table 2.27
Classification of Schools by Difficulty Level - 2012

Province	District	Very Congenial	Congenial	Not Congenial	Difficult	Very Difficult	Total
Western	Colombo	190	130	79	03	00	402
	Gampaha	141	236	146	08	00	431
	Kalutara	76	130	142	50	06	404
Total		**407**	**496**	**367**	**61**	**06**	**1,337**
Central	Kandy	85	181	248	89	40	643
	Matale	61	59	106	74	16	316
	Nuwaraeliya	20	62	219	172	65	538
Total		**166**	**302**	**573**	**335**	**121**	**1,497**
Sri Lanka		**1,202**	**2,405**	**2,892**	**2,000**	**1,406**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.28 shows that more than 4.0 million students schooling in Sri Lanka in government schools. Male and female participation of schooling is almost identical, i.e. 49% and 51% respectively. Western Province alone contributes 25% of the total students in Sri Lanka and it is about 13% of students from Central Province to the total students. These figures are comparable with other demographic data of each District such total population, male and female, age structure, etc.

Table 2.28
Total Number Students in Government Schools (Grade 1-13) - 2012

Province	District	Male	Female	Total
Western	Colombo	187,409	181,604	369,013
	Gampaha	171,503	179,666	351,169
	Kalutara	108,260	109,898	218,158
Total		**467,172**	**471,168**	**938,340**
Central	Kandy	131,707	137,851	269,558
	Matale	48,210	49,110	97,320
	Nuwaraeliya	79,191	80,088	159,279
Total		**259,108**	**267,049**	**526,157**
Sri Lanka		**1,985,283**	**2,018,803**	**4,004,086**

Source: Sri Lanka Education Information, Ministry of Education, 2012

2.7.3 Teachers and Qualifications

As indicated in the Table 2.29, the majority of schools, i.e. 45% are employed 10 – 25 teachers whereas there are less than 205 schools having more than 100 teachers. These figures highlight the fact that most of the schools are very small and have less human resources. Central Province shelters very few large school having employed more than 100 teachers and 20 of them are located in Kandy District.

Table 2.30 shows the educational qualification of the teachers attached to government schools. The total number of teachers employed in government sector schools in Sri Lanka is 233,333. Majority of teachers have the basic qualification with GCE (A/L) followed by graduates. There are about 4,000 teachers who are qualified with Masters' Degrees and above. Central Province maintains the average of Sri Lanka and Kandy District employs the highest number of graduate teachers followed by Matale and Nuwara Eliya Districts.

Table 2.29
Schools by Number of Teachers – 2012

Province	District	Seconded	Contract	01	02	03-09	10-25	26-50	51-100	100 & above	Total
Western	Colombo	00	00	00	00	43	166	84	72	37	402
	Gampaha	01	00	01	01	79	252	117	63	17	531
	Kalutara	05	00	02	05	94	181	62	41	14	404
Total		**06**	**00**	**03**	**06**	**216**	**599**	**263**	**176**	**68**	**1,337**
Central	Kandy	01	00	02	09	154	274	135	48	20	643
	Matale	00	00	02	09	89	151	43	18	04	316
	NuwaraEliya	00	00	02	02	237	189	85	23	00	538
Total		**01**	**00**	**06**	**20**	**480**	**614**	**263**	**89**	**24**	**1,497**
Sri Lanka		**13**	**01**	**71**	**141**	**2,733**	**4,411**	**1,654**	**676**	**205**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.30
Teachers in Government Schools by Educational qualification – 2012

Province	District	Less than G.C.E. (O/L)	G.C.E. O/L	G.C.E. A/L	Bachelors	Masters	M.Phil	Ph.D.	Total
Western	Colombo	01	900	6,298	8,755	490	19	03	16,466
	Gampaha	01	881	6,677	7,664	418	14	00	15,655
	Kalutara	01	644	4,508	5,063	188	04	00	10,408
Total		**03**	**2,425**	**17,483**	**21,482**	**1,096**	**37**	**03**	**42,529**
Central	Kandy	00	744	8,321	6,812	422	27	02	16,328
	Matale	00	317	3,254	2,477	101	02	00	6,151
	Nuwaraeliya	00	513	6,166	2,378	89	04	06	9,156
Total		**00**	**1,574**	**17,741**	**11,667**	**612**	**33**	**08**	**31,635**
Sri Lanka		**17**	**10,999**	**114,747**	**93,706**	**3,675**	**160**	**29**	**223,333**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.31 reveals the qualification category under graduates, trained, untrained, etc. Sri Lanka has employed 128,152 trained teachers who have basic educational qualification GCE O/L and GCE A/L. Number of graduate teachers are 86,751 which is about 35%. Central Province has 10,724 graduate teachers from which more than 6,000 are employed in Kandy District.

Table 2.31
Teachers in Government Schools by Qualification Category – 2012

Province	District	Graduates	Trained	Untrained	Teacher Trainees	Total
Western	Colombo	8,374	7,941	147	04	16,466
	Gampaha	7,400	8,139	99	17	15,655
	Kalutara	4,798	5,418	165	27	10,408
Total		**20,572**	**21,498**	**411**	**48**	**42,529**
Central	Kandy	6,344	9,449	529	06	16,328
	Matale	2,353	3,570	225	03	6,151
	Nuwara Eliya	2,027	5,704	1,411	14	9,156
Total		**10,724**	**18,723**	**2,165**	**23**	**31,635**
Sri Lanka		**86,751**	**128,152**	**5,833**	**2,597**	**223,333**

Source: Sri Lanka Education Information, Ministry of Education, 2012

According to Table 2.32, it shows that student – teacher ratio in Central Province is on par with national level while Western Province maintains a lower level due to the fact that a large student population. Matale District indicates the best student – teacher ratio among all districts shown in the table, i.e. 16 students per teacher.

Table 2.32
Gross Student Teacher Ratio by Category of Teacher and District - 2012

Province	District	Student/Graduate Teacher Ratio	Student/Trained Teacher Ratio	Student/Untrained Teacher Ratio	Overall Student/Teacher Ratio
Western	Colombo	44	46	2,444	22
	Gampaha	47	43	3,027	22
	Kalutara	45	40	1,136	21
Total		**46**	**44**	**2,044**	**22**
Central	Kandy	42	29	504	17
	Matale	41	27	427	16
	Nuwara Eliya	79	28	112	17
Total		**49**	**28**	**112**	**17**
Sri Lanka		**46**	**31**	**475**	**18**

Source: Sri Lanka Education Information, Ministry of Education, 2012

2.7.4 Student Population and Higher Education

Table 2.33 shows the school size with respect to student population. There are only 11 schools in Sri Lanka in the largest category of over 5,000 students. Colombo District has 05 largest size of schools while Kandy has 01 school under this category. Majority of schools in Sri Lanka is indicated by category 201 – 500 students and more than 7500 schools are having the student population below 1,000. Central Province shows the similarity with national average while Western Province being the most developed area for national level school education locates highest number of largest schools in the island. Kandy District, especially the Kandy City has about 15 large schools having more than 2,500 students.

Table 2.33
Present Training and Training Requirement of Central Province 193

Classification of Schools by Size of Student Population – 2012

Province	District	01-50	51-100	101-200	201-500	501-1000	1001-1500	1501-2000	2001-2500	2501-3000	3001-3500	3501-5000	Over 5000	Total
Western	Colombo	15	22	64	110	73	41	25	12	14	11	10	05	402
	Gampaha	26	44	93	153	109	45	25	14	09	03	10	00	531
	Kalutara	51	64	77	96	51	29	11	10	04	03	08	00	404
Total		**92**	**130**	**234**	**359**	**233**	**115**	**61**	**36**	**27**	**17**	**28**	**05**	**1,337**
Central	Kandy	102	101	120	165	89	35	07	09	07	02	05	01	643
	Matale	77	48	63	74	34	09	06	02	02	01	00	00	316
	NuwaraEliya	77	113	113	113	76	15	09	01	00	01	00	00	530
Total		**256**	**262**	**296**	**372**	**199**	**59**	**22**	**12**	**09**	**04**	**05**	**01**	**1,497**
Sri Lanka		**1,652**	**1,537**	**1,996**	**2,457**	**1,287**	**451**	**211**	**120**	**77**	**43**	**63**	**11**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.34 shows the realistic picture of the national education in Sri Lanka with grade span. Highest number of schools is in the category of grade 01 – 11 and most schools in Central Province are in the category of grade 01 – 05 indicating that the level of education in the region is on par with national level or below. NuwaraEliya District is the worst affected due to its location and less attention from the respective authorities during last 06 decades. Percentage of the largest span, i.e. grade 01 – 13 schools in Sri Lanka is 25% and the Kandy District has the highest number of schools, 180, under this category revealing the relationship between education attainment and the grade span (size) of the school.

Table 2.34
Number of Schools by Grade Span - 2012

Province	District	Grade 01 - 05	Grade 01 - 08	Grade 01 - 11	Grade 01 - 13	Grade 06 - 11	Grade 06 – 13	Total
Western	Colombo	79	03	165	133	3	19	402
	Gampaha	143	03	213	119	06	47	531
	Kalutara	101	11	177	103	01	11	404
Total		**323**	**17**	**555**	**355**	**10**	**77**	**1,337**
Central	Kandy	164	19	236	180	01	43	643
	Matale	113	08	108	65	00	22	316
	Nuwara Eliya	240	15	161	93	02	27	538
Total		**517**	**42**	**505**	**338**	**03**	**92**	**1,497**
Sri Lanka		**2,991**	**271**	**3,853**	**2,330**	**24**	**436**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

As shown in Table 2.35 majority of schools in Sri Lanka does not have science stream classes. This phenomenon signals the policy makers to pay a genuine attention towards the structure of the national education. Usually, if a country wants to attain a balanced socio-economic development, it is essential to maintain a proper combination of school educational structure with science, commerce and arts streams at A/L. Central Province has a fewer science stream schools than the Western Province and Kandy District is superior to both Matale and NuwaraEliya Districts.

Table 2.35
Number of Government Schools with G.C.E. (A/L) Science Stream – 2012

Province	District	Bio Science	Physical Science	Bio & Physical	Without Science Stream	Total
Western	Colombo	00	00	68	334	402
	Gampaha	01	00	52	478	531
	Kalutara	01	00	40	363	404
Total		**02**	**00**	**160**	**1,175**	**1,337**
Central	Kandy	09	00	44	590	643
	Matale	03	00	15	298	316
	Nuwara Eliya	02	01	28	507	538
Total		**14**	**01**	**87**	**1,395**	**1,497**
Sri Lanka		**42**	**07**	**704**	**9,152**	**9,905**

Source: Sri Lanka Education Information, Ministry of Education, 2012

Table 2.36 shows the recent trends of the school education system in Sri Lanka, mainly the impact of private schools on school education. It is noteworthy to identify that more than 125,000 students are enrolled in private schools, popularly known as 'International Schools' in Sri Lanka. Majority of the students are enrolled in Western Province, i.e. 85% and Kandy District, due to influence of the Kandy City, has more than 10,000 students schooling in private sector.

Table 2.36
Private Schools and Number of Students and Teachers -2012

Province	District	Students			Teachers		
		Male	Female	Total	Male	Female	Total
Western	Colombo	33,011	30,343	**63,354**	584	2,587	**3,171**
	Gampaha	10,242	11,368	**21,610**	213	738	951
	Kalutara	3,361	4,559	**7,920**	46	265	311
Total		**46,614**	**46,270**	**92,884**	**843**	**3,590**	**4,433**
Central	Kandy	6,144	4,078	**10,222**	114	456	**570**
	Matale	85	886	**971**	04	49	**53**
	NuwaraEliya	915	715	**1,630**	06	58	**64**
Total		**7,144**	**5,679**	**12,273**	**124**	**563**	**687**
Sri Lanka		**63,666**	**62,003**	**125,669**	**1,282**	**4,832**	**6,114**

Source: Sri Lanka Education Information, Ministry of Education, 2012 (School Census (Private Schools - 2012)

Table 2.37

Performance of School Candidates at GCE (O/L) Examination

District and Province	Number Sat for the Examination			Number Qualified for GCE (A/L)		
	2009	2010	2011	2009	2010	2011
Colombo	30,012	29,132	29,925	20,094	20,979	21,432
Gampaha	25,023	24,753	25,431	13,976	15,634	15,877
Kalutara	13,878	13,933	14,258	7,918	9,028	9,028
Western	**68,913**	**68,821**	**69,614**	**41,988**	**45,641**	**46,337**
Kandy	20,321	19,747	19,328	10,821	11,865	11,827
Matale	6,777	6,656	6,348	3,099	3,698	3,688
NuwaraEliya	9,664	9,638	9,589	3,895	4,802	4,794
Central	**36,762**	**36,041**	**35,265**	**17,815**	**20,365**	**20,309**
Sri Lanka	**272,200**	**271,644**	**270,032**	**142,938**	**164,527**	**164,191**

Source: Labor market Information Bulleting – Volume 1/2012 & Department of Education

As depicted in Table 2.37, the relationship between number of students appearing for GCE O/L and number of students qualifying for GCE A/L or tertiary education has not been conducive for the health of the balanced development in the island. First, as a national trend there is a decreasing number of students appearing in the GCE/OL as a result of stagnation of the population growth rate. Second, there is no significant improvement in the qualifying number, especially 2010 and 2011. Qualifying rate is on average is approximately 60%, thereby 40% being added to some other forms of education or given up of the formal education. This portion and the other students already left in pursuing higher education should be well looked after when the country introducing economic development programs.

Table 2.38 shows the relationship between number of students appearing GCE A/L and number of students qualifying to national universities. The marginal improvement in passing rate shows that the educational attainment of students is acceptable; yet, the destiny of the students in pursuing higher education, especially in national universities has become a calamity for number of decades in Sri Lanka. The country average of passing rate at GCE/AL is approximately 60% implies that 40% will be added to other mode of education or to labor force.

Table 2.38
Performance of School Candidates at GCE (A/L) Examination

District	**Number Sat for the Examination**		**Number Qualified for University Entrance**	
	2009	**2010**	**2009**	**2010**
Colombo	22,108	24,125	12,766	14,061
Gampaha	15,750	17,410	8,847	10,037
Kalutara	9,415	10,286	5,761	6,570
Western	**47,273**	**51,821**	**27,374**	**30,668**
Kandy	13,627	14,968	8,037	8,862
Matale	3,977	4,247	2,372	2,472
NuwaraEliya	4,816	5,332	2,994	3,217
Central	**22,420**	**24,547**	**13,403**	**14,561**
Sri Lanka	**177,640**	**195,043**	**108,725**	**120,281**

Source: Labor market Information Bulleting – Volume 1/2012 & Department of Education

Table 2.39 summarizes the number of students selected from the Districts and Provinces to national universities during 2003/04 – 2010/11. The highest number of students were selected in 2010/11, that is over 22,000 which is an increase of nearly 100% during the period of 2003/04 – 2010/11. The Western Province is contributing the highest number of students to annual enrollment and Colombo District is the most dominant District due to its larger population base. Educational attainment of Kandy District is among the highest in Central Province while Matale and NuwaraEliya Districts show the lowest contribution. Sri Lanka, however, has not been able to enroll the number of students qualified in Western Province (30,000 in 2011) to be enrolled in universities from the whole nation. As a result, the noteworthy feature of the university entrance is that lees than 20% of the students qualified to enter national universities are realistically enrolled. This situation requires the highest attention from policy makers in the country in particular, and other stakeholders such as employers of private sector and public sector, training institutes, in general.

Table 2.39
University Admission by Province and District 2003/04 – 2010/11

District & Province	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**
Colombo	2,238	2,350	2,694	2,496	2,749	2,874	2,861	2,874
Gampaha	877	980	1,124	1,075	1,462	1,454	1,627	1,618
Kalutara	592	644	832	714	946	902	1,024	1,025
Western	**3,707**	**3,974**	**4,650**	**4,285**	**5,157**	**5,230**	**5,512**	**5,517**
Kandy	877	916	1,170	1,121	1,291	1,341	1,290	1,311
Matale	196	206	294	284	306	320	357	322
NuwaraEliya	286	343	380	351	411	446	464	490
Central	**1,359**	**1,465**	**1,844**	**1,756**	**2,008**	**2,107**	**2,111**	**2,123**
Sri Lanka	**13,396**	**14,520**	**17,299**	**17,196**	**20,069**	**20,846**	**21,547**	**22,016**

Source: University Grants Commission 2012

2.8 Summary

This chapter discussed the socio-economic structure of the Central Province in comparison to the country average and other provinces such as western and southern provinces. Administrative structure, geography and climate, demography and demographical dynamics, economic structure and main economic sectors, labour force, employment and unemployment conditions, income distribution and poverty and school system and education attainments of the province were discussed in detail. It is found that there are large opportunities to expand socio-economic aspects of the Central Province absolutely and relatively compared to fast growing provinces such as western and southern provinces. The information gathered and discussed in this chapter will help in analyzing economic sectors of the province and labour market requirements in chapters 3 and 4 of this report.

CHAPTER THREE

INDUSTRIAL SECTOR REPORTS OF CENTRAL PROVINCE

3.0 Overview

In this chapter, sector reports of economic activities of the Central Province are reported. The study identifies the following main sectors in the analysis:

1. Construction Sector
2. Light Engineering Sector
3. Automobile Repair and Service Sector
4. Household Electrical Equipment Repair Services
5. Information and Communication Industry
6. Printing and Publishing Industry
7. Textiles and Garment
8. Hotel and Tourism, and
9. Cottage Industry.

The reports of the above sectors are prepared using secondary data obtained from various national and provincial data sources and sample survey conducted during the months of Octoberto Decemberin 2013. Sources of data used in each sector reports are given in respective sector reports. The findings and the coverage of these sector reports were validated in a workshop held in May 2014 with participation from relevant professionals and experts.

3.1Sector Report of the Construction Industry

3.1.1 Background

The construction industry is one of rapidly growing sectors in the economy of Sri Lanka at present. About 8% of GDP of Sri Lanka is generated by construction activities in recent years. The construction industry grew at a rate of 12% in 2011 (see Table 3.1 and Table 3.2). As given in Table 3.1, the Western Province accounts for 35% of total construction output of Sri Lanka while Southern Province accounts for about 24%. The construction sector in the Eastern Province has grown up rapidly from 2009 to 2011 and it accounts for 14% of total construction output of Sri Lanka.

Table 3.1
Performance of Construction Industry –Central Provincial and Sri Lanka
(Output values are in Rs. million at 1996 constant prices)

Entity	Item	2008	2009	2010	2011
Sri Lanka	Construction output	109,667	115,975	124,938	139,869
	GDP	1,478,606	1,531,125	1,653,616	1,790,427
	Construction output as % of GDP	7.42	7.57	7.56	7.81
	Growth rate of construction output	6.47	5.75	7.73	11.95
	Growth rate of GDP	5.94	3.55	8.00	8.27
Central Province	Provincial construction output	6,088	6,439	7,041	8,235
	Provincial GDP	144,344	146,526	166,050	176,241
	Construction output as % of prov. GDP	4.22	4.36	4.24	4.67
	Growth rate of construction output	6.46	5.75	8.63	16.95
	Growth rate of provincial GDP	7.65	2.20	12.56	6.14

Source: Department of Census and Statistics, 2008-2013

Table 3.2
ProvincialGDP Share and Growth Rates of Construction Sector

Province	As a % of total construction industry output		Growth rate (%)	
	2010	2011	2010	2011
Western	37.1	34.7	8.1	4.7
Southern	23.1	23.5	17.3	13.8
Eastern	12.7	13.0	-10.7	14.6
North Western	6.4	6.5	-18.7	13.9
Central	5.6	5.9	8.6	17.0
Northern	4.0	5.2	51.0	44.6
North Central	5.3	5.0	2.3	5.7
Uva	3.6	3.6	-6.0	10.9
Sabaragamuwa	2.2	2.7	13.9	37.9
Sri Lanka	**100.0**	**100.0**	**8.1**	**12.0**

Source: Department of Census and Statistics, 2008-2013

The contribution of the construction sector of the Central Province to the total construction output of the country is about 6% and in the fifth place after Western, Southern, Eastern and North Western Provinces. The construction sector in the Central Province recorded an impressive growth rate in recent years. It grew at about 9% in 2010 and 17% in 2011. The growth of the construction sector in the Central Province was the second highest among all provinces after the Northern Province in 2011. If the construction sector aspires to grow at a rate of 9% in coming years it would requires a million skilled workers (ICRA report 2011).

Based on the recent performance of the construction sector of the province, we assume that the Central Province construction sector would grow at a rate of 10% per annum on average. A 10% average growth of the industry on the 2011 actual figure of Rs. 8,235 millionwill increase the construction output of the province to Rs. 9,964 million in 2013 and to Rs. 16,048 million by 2018.

Table 3.3
Predicted Construction Sector Output at Constant Prices of Central Province

Year	Predicted output at 1996 constant prices (with a 10% from 2011 actual value of Rs. 8,235 million)
2012	9,059
2013	9,964
2014	10,961
2015	12,057
2016	13,263
2017	14,589
2018	16,048

Source: Growth Projections

3.1.2 Registered Construction Companies

This section provides the number of construction companies registered with the Institute of Construction Training and Development (ICTAD) and estimated number of registered companies in the Central Province from 2014 to 2018. The ICTAD categorizes construction firms under 10 financial limits of investment (see Table 3.4). These firms can be categorized into large, medium and small firms depending on the value of investment.

Table 3.4 provides registered construction companies in Kandy District for the years 2011, 2012 and 2013. The total number of registered companies increased from 109 in 2011 to 167 in 2013 with a 26% average growth. The expansion in 2013 is high as 50% increase from the previous year number. Out of 167 registered companies, 32% are small firms, 64% are medium firms and only 4% are large firms. Around 92% of companies have the investment of less than 50 million rupees. Table 3.5 also provides the predicted number of registered companies from 2014 to 2018.

With a 10% of average growth rate, the number registered construction companies in Kandy is expected to increase up to 183 in 2014, 221 in 2016 and 268 in 2018.

Table 3.4
Classification of Construction Companies

S/N	Category	Financial Limit (Rs millions)	Classification*
1	C1	Greater than 600	Large
2	C2	Greater than 300 but less than/equal 600	
3	C3	Greater than 150 but less than/equal 300	
4	C4	Greater than 50 but less than/equal 150	Medium
5	C5	Greater than 25 but less than/equal 50	
6	C6	Greater than 10 but less than/equal 25	
7	C7	Greater than 05 but less than/equal 10	
8	C8	Greater than 02 but less than/equal 05	Small
9	C9	Greater than 01 but less than/equal 02	
10	C10	Less than/equal 01	

Note: * Classification is based on financial limit.
Source: ICTAD database, 2014.

Table 3.5
Registered Construction Companies in KandyDistrict

	Registered number of companies				Estimated number of registered companies				
	2011	2012	2013		2014	2015	2016	2017	2018
Grade	**No.**	**No.**	**No.**	**%**	**No.**	**No.**	**No.**	**No.**	**No.**
C1	0	0	0	0.0	0	0	0	0	0
C2	1	0	1	0.6	1	1	1	1	2
C3	6	2	5	3.0	5	6	7	7	8
C4	3	5	6	3.6	7	7	8	9	10
C5	9	6	13	7.8	14	16	17	19	21
C6	13	8	12	7.2	13	14	16	17	19
C7	39	45	76	45.5	83	91	101	111	122
C8	27	32	36	21.6	39	43	48	52	58
C9	5	11	13	7.8	14	16	17	19	21
C10	6	2	5	3.0	5	6	7	7	8
Total	**109**	**111**	**167**	**100.0**	**183**	**201**	**221**	**243**	**268**

Source: Registered number of companies for 2011, 2012 and 2013 are from ICTAD, 2014.

Table 3.6 provides registered construction companies in Matale District. The total number of registered companies increased from 17 in 2011 to 38 in 2013 with a 50% average growth. Out of 38 registered companies 29% are small firms, 69% are medium firms and only 2% are large firms. Around 97% of companies have the investment of less than 50 million rupees. Table 3.4

also provides predicted number of registered companies from 2014 to 2018. With a 10% of average growth rate, the number of registered construction companies in Matale is expected to increase up to 42 in 2014, 51 in 2016 and 62 in 2018.

Table 3.6
Registered Construction Companies in Matale District

Grade	Registered number of companies				Estimated number of registered companies				
	2011	2012	2013		2014	2015	2016	2017	2018
	No.	No.	No.	%	No.	No.	No.	No.	No.
C1	0	0	0	0.0	0	0	0	0	0
C2	0	0	0	0.0	0	0	0	0	0
C3	0	1	1	2.6	1	1	1	1	2
C4	0	0	0	0.0	0	0	0	0	0
C5	1	3	6	15.8	7	7	8	9	10
C6	3	1	2	5.3	2	2	3	3	3
C7	8	10	18	47.4	20	22	24	27	29
C8	5	6	9	23.7	10	11	12	13	15
C9	0	2	2	5.3	2	2	3	3	3
C10	0	0	0	0.0	0	0	0	0	0
Total	**17**	**23**	**38**	**100.0**	**42**	**46**	**51**	**56**	**62**

Source: Registered number of companies for 2011, 2012 and 2013 are from ICTAD, 2014

Table 3.7
Registered Construction Companies in NuwaraEliya District

Grade	Number of Registered Companies				Estimated number of registered companies				
	2011	2012	2013		2014	2015	2016	2017	2018
	No.	No.	No.	%	No.	No.	No.	No.	No.
C1	0	0	0	0.0	0	0	0	0	0
C2	0	0	0	0.0	0	0	0	0	0
C3	0	0	0	0.0	0	0	0	0	0
C4	0	1	1	5.0	1	1	1	1	2
C5	1	1	1	5.0	1	1	1	1	2
C6	1	1	3	15.0	3	4	4	5	5
C7	8	7	10	50.0	11	12	13	15	16
C8	3	4	1	5.0	1	1	1	1	2
C9	1	0	4	20.0	5	5	6	6	6
C10	0	0	0	0.0	0	0	0	0	0
Total	**14**	**14**	**20**	**100.0**	**22**	**24**	**26**	**29**	**33**

Source: Registered number of companies for 2011, 2012 and 2013 are from ICTAD, 2014

Table 3.7 provides registered construction companies in NuwaraEliya District. The total number of registered companies increased from 14 in 2011 to 20 in 2013 with a 42% growth in 2013. Out of 20 registered companies, 25% are small firms and 75% are medium firms. Around 95% of companies have the investment of less than Rs. 50 million.With a 10% of average growth rate, the number registered construction companies in NuwaraEliya is expected to increase up to 22 in 2014, 26 in 2016 and 33 in 2018.

3.1.3 Construction Sector Employment Estimation

(i) Method 1

We use the average number of craftsmen in each category of registered construction firms together with number of predicted companies in estimating future employment. Based on the average number of craftsmen and number of registered companies in each category we compute average number craftsmen in registered companies in Kandy, Matale, Nuwara Eliya and the Central Province. Based on the sample survey, it is assumed that there are 20 unregistered construction companies in a DS division and about 10 persons are employed in each on average. Further, the average number self-employed craftsmen is assumed to be 150 per DS Division.

Based on the construction industry survey in 2006, VET Plan for the construction industry identifies the breakdown of construction employees by area of expertise. Accordingly, about 73.5% of total construction employees are craftsmen, 10% are technicians, 8% are clerical and related employees, 5% are machine operators and 3.5% are professionals. The total number of construction employment is calculated as in Table 3.8 using the estimated number craftsmen and their percentage distribution.

The estimated total construction sector employment and number of craftsmen for the year are given as follows. The construction employment in Kandy is 16,134 persons in 2013. Of that 11,285 persons are craftsmen and 780 persons are aluminum fabricators. The construction employment in Matale is 6,906persons in 2013. Of that 4,715 persons are craftsmen and 491 persons are aluminum fabricators. The construction employment in NuwaraEliya is 3,368 persons in 2013. Of that 2,200 persons are craftsmen and 375 are aluminum fabricators. The construction employment of the Central province amounted to 26,408 persons in 2013 and 18,200 of them are craftsmen and 1,646 are aluminum fabricators.

Table 3.8
Estimation of Number of Construction Craftsmen in Central Province

Category	Average No. of craftsmen per unit	Kandy		Matale		NuwaraEliya		Central Province	
		No. of units	Craft s-men	No. of units	Crafts -men	No. of units	crafts-men	No. of units	Crafts-men
C2	150	1	150	0	0	0	0	1	150
C3	50	5	250	1	50	0	0	6	300
C4,C5,C6,C7	25	107	2675	26	650	15	375	148	3700
C8, C9, C10	15	54	810	11	165	5	75	70	1050
Registered companies		167	3885	38	865	20	450	225	5200
Unregistered companies (20 average per DS division, with 10 persons employed)		440	4400	220	2200	100	1000	760	7600
Self-employed craftsmen (150average craftsmen per DS division)		20	3000	11	1650	5	750	36	5400
Estimated craftsmen with- out aluminum fabricators			**11285**		**4715**		**2200**		**18200**
Construction industry employment without aluminum fabricators			**15354**		**6415**		**2993**		**24762**
Aluminum fabrication	> 5 workers	22	110	13	65	7	35	42	210
	3-5 workers	85	340	45	180	36	144	166	664
	<2 workers	165	330	123	246	98	196	386	772
Aluminum fabricators			**780**		**491**		**375**		**1646**
Total Construction industry employment with aluminum fabricators			**16134**		**6906**		**3368**		**26408**

Note: *Construction employment is calculated based on estimated total craftsmen and relative distribution of craftsmen (73.5%) in the construction employment.
Source: Estimates of the present study.

(ii) Method 2

We use actual output data and total employment figures reported to estimate labour force requirements in the construction sector. For this, we calculateconstruction sector output (at constant prices)to construction sector employment ratio for the year 2011 using data on GDP values and employment of sectors reported by Labour Force Survey, 2012.

$$\text{Output - employment ratio} = \frac{output}{employment}$$

The computed construction sector output- employment ratio for Sri Lanka was 0.357 in 2011. We use output employment ratio of 0.36 for further calculations. With a 10% average growth rate of construction sector output, the construction employment in the Central province is estimated to be about 27,679 persons in 2013. This number is not too much different from the estimated number using Method 1.

(iii) Estimated Construction Employment using Method 1 and Method 2

We estimate the construction employment in the province using above two methods.There isno significant difference between the construction employments in the two estimation methods. It is interesting to see a similar annual increment of construction employment calculated by the two methods.

Table 3.9
Estimated construction employment of Central Province, 2013-2018

Year	Method 1		Method 2	
	Total employment	Annual Increase	Total employment	Annual Increase
2013	26,408		27,679	
2014	29,049	2,641	30,447	2,768
2015	31,954	2,904	33,491	3,045
2016	35,149	3,195	36,840	3,349
2017	38,664	3,515	40,524	3,684
2018	42,530	3,866	44,577	4,052
Annual Average Increase		**3,224**		**3,380**

Source: Estimates.

The annual average increase in the total construction employment is 3,224 persons in Method 1 and 3,380 persons in Method 2. The difference between the average annual increase in the construction employment in the two methods is about 156 persons. This indicates our estimated data are comparable and thus their reliability seems to be high. Since there is no big difference in the annual increase in the construction employment by the two methods, we use the estimates from Method 1 as the **benchmark** for the analysis.

3.1.4 Construction Employment Estimation by District and Occupation

We use Method 1 in computation of the district-wise construction employment from 2013 to 2018. The total construction employment in Kandy will be 16,134 persons in 2014. This will increase to 25,979 persons by 2018. Of total employment of 25,979 persons in 2018, 19,095 are craftsmen, 2,598 workers are in technical grades, 2078 are clerical and related workers, 1,299 are machine operators and 909 are professionals. The Table 3.10 gives the additional number of workers required by occupation. On average the construction industry in Kandy requires annually 1448 craftsmen, 197workers in technical grades, 158clerical and related workers, 98 machine operators and 69 professionals during the next five years from 2014 to 2018.

Table 3.10
Estimated Construction Employment in Kandy, 2013-2018

Year	Total number of workers						Additional workers				
	Professionals	Clerical and related	Technical Grades	Craftsmen	Machine Operators	Total	Professionals	Clerical & related	Technical grades	Craftsmen	Machine operators
	(3.5)	(8.0)	(10.0)	(73.5)	(5.0)	(100.0)					
2013	565	1290	1613	11859	807	16134					
2014	621	1420	1774	13042	887	17744	56	129	161	1183	81
2015	683	1562	1952	14346	976	19519	62	142	178	1305	89
2016	751	1718	2147	15780	1074	21470	68	156	195	1434	98
2017	827	1889	2362	17358	1181	23617	75	172	215	1578	107
2018	909	2078	2598	19095	1299	25979	83	189	236	1736	118
Annual Average Requirement (number of persons)							**69**	**158**	**197**	**1448**	**98**

Note: Numbers in parenthesis give percentage distribution of occupational categories.
Source: Estimates of present study.

Table 3.11
Estimated Construction Employment in Matale, 2013-2018

Year	Total number of workers						Additional workers				
	Professionals	Clerical and related	Technical Grades	Craftsmen	Machine Operators	Total	Professionals	Clerical & related	Technical grades	Craftsmen	Machine operators
	(3.5)	(8.0)	(10.0)	(73.5)	(5.0)	(100.0)					
2013	242	552	691	5076	345	6906					
2014	266	608	760	5584	380	7597	24	55	69	508	35
2015	292	668	836	6142	418	8356	27	61	76	558	38
2016	322	735	919	6756	460	9192	29	67	84	614	42
2017	354	809	1011	7432	506	10111	32	74	92	675	46
2018	389	890	1112	8175	556	11122	35	81	101	743	51
Annual Average Requirement (number of persons)							**30**	**67**	**84**	**620**	**42**

Note: Numbers in parenthesis give percentage distribution of occupational categories.
Source: Estimates of present study

The total construction employment in Matale would be 6,906 persons in 2014. This will increase to 11,122 persons by 2018. Of total employment of 11,122 persons, 8,175 are craftsmen, 1112 workers are in technical grades, 890 are clerical and related workers, 556 are machine operators and 389 are professionals. The shaded part of the Table 3.12 gives the additional number of workers required by occupation. On average the construction industry in Matalerequires annually 620 craftsmen, 84 workers in technical grades, 67 clerical and related workers, 42 machine operators and 30 professionals between 2014 and 2018.

Table 3.12
Estimated Construction Employment in NuwaraEliya, 2013-2018

Year	Total number of workers						Additional workers				
	Professionals	**Clerical and related**	**Technical Grades**	**Craftsmen**	**Machine Operators**	**Total**	**Professionals**	**Clerical & related**	**Technical grades**	**Craftsmen**	**Machine operators**
	(3.5)	(8.0)	(10.0)	(73.5)	(5.0)	(100.0)					
2013	118	269	337	2475	168	3368					
2014	130	296	371	2723	185	3705	12	27	34	248	17
2015	143	326	408	2995	204	4075	13	30	37	272	19
2016	157	359	448	3295	224	4483	14	33	41	300	20
2017	173	394	493	3624	247	4931	16	36	45	329	22
2018	190	434	542	3987	271	5424	17	39	49	362	25
Annual Average Requirement (number of persons)							**14**	**33**	**41**	**302**	**21**

Note: Numbers in parenthesis give percentage distribution of occupational categories.
Source: Estimates of present study

The total construction employment in NuwaraEliya district would be 3,368 persons in 2014. This will increase to 5,424 persons by 2018. Of total employment of 5,424 persons, 3987 are craftsmen, 542 workers are in technical grades, 434 are clerical and related workers, 271 are machine operators and 190 are professionals. The Table 4.12provides the additional number of workers required by occupation. On average the construction industry in Nuwara Eliya district requires annually 302 craftsmen, 41 workers in technical grades, 33clerical and related workers, 21 machine operators and 14 professionals between 2014 and 2018.

Table 3.13
Average Annual Requirement of Construction Employment, 2014-2018

Occupation Category	Kandy	Matale	NuwaraEliya	Central Province
Professionals	69	30	14	**113**
Clerical and related workers	158	67	33	**258**
Technical grades	197	84	41	**322**
Craftsmen	1,448	620	302	**2,370**
Machine Operators	98	42	21	**161**
Total	**1,970**	**843**	**411**	**3,224**

Source: Field Survey, 2013.

Table 3.13 provides the average annual additional requirements of construction labour force in Kandy, Matale, NuwaraEliya and the Central Province. The Central province construction sector, on average, requires 113 professionals, 258 clerical related workers, 322 technical grade workers, 2370 craftsmen and 161 machine operators during the next five years.

3.1.5 Construction Employment Estimation by District and Skills

Division of employees in craftsmen category

We use sample survey information and the relative distribution of construction craftsmen reported in 2006 VET plan for the construction industry to divide craftsmen into specific jobs by districts in the Central province. Tables 3.14-3.16 depict the additional workers in specific job category for Kandy, Matale and NuwaraEliya districts.

Table 3.14
Division of Additional Employment in Craftsmen Category- Kandy

Occupation category	% of total craftsmen	2014	2015	2016	2017	2018	Annual Average Requirement
Mason and plasterer	34.0	403	444	488	537	590	**492**
Carpenter	17.0	202	222	244	268	295	**246**
Shuttering worker	14.0	166	183	201	221	243	**203**
Electrician	7.5	89	98	108	118	130	**109**
Plumber and pipe fixer	7.0	83	91	100	110	122	**101**
Aluminum fabricator	6.5	77	85	93	103	113	**94**
Tile Layer	5.0	59	65	72	79	87	**72**
Bar bender and steel fixer	5.0	59	65	72	79	87	**72**
Painters	4.0	47	52	57	63	69	**58**
Total	**100**	**1,186**	**1,305**	**1,434**	**1,578**	**1,736**	**1,448**

Source: Field Survey 2013.

Table 3.15
Division of Additional Employment in Craftsmen Category-Matale

Occupation category	% of total craftsmen	2014	2015	2016	2017	2018	Annual Average Requirement
Mason and plasterer	34.0	173	190	209	230	253	**211**
Carpenter	17.0	86	95	104	115	126	**105**
Shuttering worker	14.0	71	78	86	95	104	**87**
Electrician	7.5	38	42	46	51	56	**46**
Plumber and pipe fixer	7.0	36	39	43	47	52	**43**
Aluminum fabricator	6.5	33	36	40	44	48	**40**
Tile Layer	5.0	25	28	31	34	37	**31**
Bar bender and steel fixer	5.0	25	28	31	34	37	**31**
Painters	4.0	20	22	25	27	30	**25**
Total	**100**	**508**	**558**	**614**	**675**	**743**	**620**

Source: Field Survey 2013.

Table 3.16
Division of Additional Employment in Craftsmen Category-NuwaraEliya

Occupation category	% of total craftsmen	2014	2015	2016	2017	2018	Annual Average Requirement
Mason and plasterer	34.0	84	92	102	112	123	**103**
Carpenter	17.0	42	46	51	56	62	**51**
Shuttering worker	14.0	35	38	42	46	51	**42**
Electrician	7.5	19	20	23	25	27	**23**
Plumber and pipe fixer	7.0	17	19	21	23	25	**21**
Aluminum fabricator	6.5	16	18	20	21	24	**20**
Tile Layer	5.0	12	14	15	16	18	**15**
Bar bender and steel fixer	5.0	12	14	15	16	18	**15**
Painters	4.0	10	11	12	13	14	**12**
Total	**100**	**248**	**272**	**300**	**329**	**362**	**302**

Source: Field Survey 2013.

Table 3.17 summarizes the average annual worker requirement in craftsmen category. Accordingly, the Central Province requires 806 masons and plasterers, 402 carpenters, 332 concrete workers, 178 electricians, 165 plumbers and pipe fixers, 154 aluminum fabricators, 118 tile layers, 118 bar benders and steel workers and 95 painters annually.

Table 3.17
Additional Employment in Craftsmen Category (Annual Average),2014-2018

Occupation category	Kandy	Matale	NuwaraEliya	Central Province
Mason and plasterer	492	211	103	**806**
Carpenter	246	105	51	**402**
Shuttering worker	203	87	42	**332**
Electrician	109	46	23	**178**
Plumber and pipe fixer	101	43	21	**165**
Aluminum fabricator	94	40	20	**154**
Tile Layer	72	31	15	**118**
Bar bender and steel fixer	72	31	15	**118**
Painters	58	25	12	**95**
Total	**1,448**	**620**	**302**	**2,370**

Source: Field Survey, 2013

Division of employees in machine operator category

We use the relative distribution of machine operators in the construction sector reported in 2006 VET plan for construction industry to divide craftsmen into specific jobs by districts in the Central province. Tables 3.18 - 3.21 give the additional workers in specific jobs of machine operatorcategory.

Table 3.18
Division of Additional Employment in Machine Operator Category- Kandy

Occupation category	% of total machine operators	2014	2015	2016	2017	2018	Annual Average Requirement
Heavy machine operator	42.0	34	37	41	45	50	41
Construction machinery mechanic	34.0	28	30	33	36	40	34
Light machine operator	24.0	19	21	24	26	28	24
Total	**100.0**	**81**	**89**	**98**	**107**	**118**	**99**

Source: Field Survey, 2013.

The Central Province requires 68 heavy machine operators, 55 construction machinery mechanics and 39 light machine operators annually during the period 2014-2018.

Table 3.19
Division of Additional Employment in Machine Operator Category-Matale

Occupation category	% of total machine operators	2014	2015	2016	2017	2018	Annual Average Requirement
Heavy machine operator	42.0	15	16	18	19	21	18
Construction machinery mechanic	34.0	12	13	14	16	17	14
Light machine operator	24.0	8	9	10	11	12	10
Total	**100.0**	**35**	**38**	**42**	**46**	**51**	**42**

Source: Field survey 2013.

Table 3.20
Division of Additional Employment in Machine Operator Category-NuwaraEliya

Occupation category	% of total machine operators	2014	2015	2016	2017	2018	Annual Average Requirement
Heavy machine operator	42.0	7	8	8	9	11	9
Construction machinery mechanic	34.0	6	6	7	7	9	7
Light machine operator	24.0	4	5	5	5	6	5
Total	**100.0**	**17**	**19**	**20**	**22**	**25**	**21**

Source: Field survey 2013.

Table 3.21
Additional Employment in Machine Operators (Annual Average) 2014-2018

Occupation category	Kandy	Matale	NuwaraEliya	Central Province
Heavy machine operator	41	18	9	68
Construction machinery mechanic	34	14	7	55
Light machine operator	24	10	5	39
Total	**99**	**42**	**21**	**162**

Source: Field survey 2013.

Division of employees in technical grade category

We use the relative distribution of jobs in technical grade category in the construction sector reported in 2006 VET plan for construction industry to divide employees in technical grades into specific jobs by districts in the Central province. Tables 3.22 - 3.25 provide the additional workers in specific job category for Kandy, Matale and NuwaraEliya districts.

Table 3.22
Division of Additional Employment in Technical Grade- Kandy

Occupation category	% of total technical grade staff	2014	2015	2016	2017	2018	Annual Average Requirement
Technical officer	37.0	60	66	72	80	87	73
Civil work supervisor	28.1	45	50	55	60	66	55
Mechanical fixer	12.1	19	22	24	26	29	24
Foreman	8.9	14	16	17	19	21	18
Electrical technician	8.9	14	16	17	19	21	18
Draftsman	2.8	5	5	5	6	7	6
Landscaper	2.1	3	4	4	5	5	4
Total	**100.0**	**161**	**178**	**195**	**215**	**236**	**197**

Source: Field survey, 2013.

Table 3.23
Division of Additional Employment in Technical Grade Category, Matale

Occupation category	% of total technical grade staff	2014	2015	2016	2017	2018	Annual Average Requirement
Technical officer	37.0	26	28	31	34	37	31
Civil work supervisor	28.1	19	21	24	26	28	24
Mechanical fixer	12.1	8	9	10	11	12	10
Foreman	8.9	6	7	7	8	9	8
Electrical technician	8.9	6	7	7	8	9	8
Draftsman	2.8	2	2	2	3	3	2
Landscaper	2.1	1	2	2	2	2	2
Total	**100.0**	**69**	**76**	**84**	**92**	**101**	**84**

Source: Field Survey, 2013.

Table 3.24
Division of Additional Employment in Technical Grade Category, Nuwara Eliya

Occupation category	% of total technical grade staff	2014	2015	2016	2017	2018	Annual Average Requirement
Technical officer	37.0	13	14	15	17	18	15
Civil work supervisor	28.1	10	10	12	13	14	12
Mechanical fixer	12.1	4	4	5	5	6	5
Foreman	8.9	3	3	4	4	4	4
Electrical technician	8.9	3	3	4	4	4	4
Draftsman	2.8	1	1	1	1	1	1
Landscaper	2.1	1	1	1	1	1	1
Total	**100.0**	**34**	**37**	**41**	**45**	**49**	**41**

Source: Field survey, 2013.

Table 3.25
Additional Employment in Technical Grade (Annual Average) 2014-2018

Occupation category	Kandy	Matale	NuwaraEliya	Central Province
Technical officer	73	31	15	119
Civil work supervisor	55	24	12	91
Mechanical fixer	24	10	5	39
Foreman	18	8	4	30
Electrical technician	18	8	4	30
Draftsman	6	2	1	9
Landscaper	4	2	1	7
Total	**197**	**84**	**41**	**322**

Source: Field survey, 2013.

Table 3.26
Prospective Foreign Employment

Occupation category	Foreign Labour Demand and Supply Mismatch, Sri Lanka 2011			Training requirement, if CP supplies 5% of unsupplied foreign demand
	Job orders	Departures	Unsupplied	
Craftsmen				
Mason and plasterer	5925	1199	4726	236
Carpenter (construction)	3961	925	3036	152
Shuttering worker	1429	171	1258	63
Electrician	6557	1290	5267	263
Plumber and pipe fixer	5417	888	4529	226
Aluminum fabricator	789	233	556	28
Tile Layer	998	337	661	33
Bar bender and steel fixer	820	129	691	35
Painters	2610	422	2188	109
Machine Operators				
Heavy machine operator	3984	1483	2501	125
Mechanic	327	28	299	15
Light machine operator	1421	384	1037	52
Technical Grade Employees				
Technical officer	1026	859	170	9
Civil work supervisor	313	131	182	9
Mechanical fixer/supervisor	2153	1350	803	40
Foreman	1340	1025	315	16
Electrical technician	1899	1009	890	45
Draftsman	472	183	289	14
Landscaper	8		8	0

Source: Based on Sri Lanka Foreign Employment Bureau, 2011, 2012.

Table 3.27
Construction Sector Total Training Requirement of Central Province
(Annual Average Requirement) 2014-2018

Occupation category	Estimated Local Demand	Estimated Foreign Demand	Estimated Total Demand
Craftsmen	**2,370**	**1,145**	**3,515**
Mason, plasterer & related	806	236	**1,042**
Carpenter	402	152	**554**
Shuttering worker	332	63	**395**
Electrician	178	263	**441**
Plumber and pipe fixer	165	226	**391**
Aluminum fabricator	154	28	**182**
Tile Layer	118	33	**151**
Bar bender and steel fixer	118	35	**153**
Painters	95	109	**204**
Machine Operators	**162**	192	**354**
Heavy machine operator	68	125	**193**
Mechanic	55	15	**70**
Light machine operator	39	52	**91**
Technical Grade Employees	**322**	**133**	**455**
Technical officer	119	9	**128**
Civil work supervisor	91	9	**100**
Mechanical fixer/supervisor	39	40	**79**
Foreman	30	16	**46**
Electrical technician	30	45	**75**
Draftsman	9	14	**23**
Landscaper	7	0	**7**
Clerical and related workers	**258**		**258**
Professionals	**113**		**113**
Total	**3,224**	**1,470**	**4,694**

Source: Estimates based on Field Survey, 2013.

3.1.6. Foreign Demand for Construction Labour

Based on Sri Lanka Bureau of Foreign Employment database, we obtained the unsupplied amount of construction sector labour. The unsupplied amount of workers is the difference between the reported number of job orders and number of departures for a specific job. Then, we assume that the Central Province can train 5% of unsupplied number of workers to send abroad. The training requirement for foreign job is obtained under each job category of middle level, skilled and semi-skilled levels. The last column of Table gives the training requirement for foreign jobs. We assume that the Central province can train the number of workers given under each job category in the last column of the Table 26 annually for foreign markets and make sure that workers trained should be sent to foreign jobs.

3.1.7. Annual Training Requirementin Construction Sector

In this section, we summarize the demand for skilled construction labour from the three districts in the Central province based on annual average demand. Table 3.27 gives the total labour training requirement for the Central province during 2014-2018 period. The total demand is obtained by summing up estimated local demand and estimated foreign demand.

3.2 Light EngineeringSector

3.2.1 Background

This sector report includes welding works, iron and steel fabrication, lathe machine works, production machinery and equipment repair, agricultural machinery and equipment repair, construction machinery and equipment repair, brassware and other metal related craftworks. The lack of information on the registered number of companies or entities in the sector seriously affected the information collection. The list of entities registered with Divisional Secretariat (DS) divisions is also less informative: there is no information on their size of operation such as small, medium or large, investment, number of workers employed, etc.

A sample survey was conducted among the companies registered with DS under each category to identify the number of firms having more than five workers, 3 to 5 workers and 2 workers. Based on the percentage distribution of firms revealed by sample survey, the total firms divided among firms with more than 5 workers, 3 to 5 workers and 2 workers in each DS division and then in each district. Table 3.28 gives the division of firms according to the number of employment. The number of employment is calculated using following method: multiply the number of firms by 5 if the employment is more than five, multiply the number of firms by 4 if the employment is in between 3 and 5 and multiply the number of firms by 2 if the employment is 2.

3.2.2 Number of Firms and Employment

Table 3.28 provides the estimated number of light engineering firms in the Central province and their total employment. The number of light engineering firms operated in Kandy is 529 in total. The total number of light engineering employment in Kandy was estimated to be 1360 persons in 2013. These workers work in 529 working stations in different activities. This labour force is distributed among different activities as follows: 20% in welding shops, 19% in iron and steel fabrication workplaces, 19% in brassware and other metal related workplaces, 15% in agricultural machinery and equipment repair places, 12% in construction machinery and equipment repair workplaces, 9% in production machinery and equipment repair workplaces and 7% in lathe machine workplaces.

The total number of light engineering workplaces in Matalewas estimated to be 433 and their employment was estimated to be 1038 persons in 2013. This labour force is distributed among different activities as follows: 24% in welding shops, 22% in iron and steel fabrication workplaces, 19% in agricultural machinery and equipment repair places, 10% in brassware and other metal related workplaces, 9% in production machinery and equipment repair workplaces, 8% in construction machinery and equipment repair workplaces and 6% in lathe machine workplaces.

There are 333 light engineering workstations in NuwaraEliya District in 2013. The total number of light engineering employment in Matale was estimated to be 816 persons. This labour force is distributed among different activities as follows: 24% in welding shops, 24% in agricultural machinery and equipment repair places, 23% in iron and steel fabrication workplaces, 9% in production machinery and equipment repair workplaces, 8% in construction machinery and equipment repair workplaces, 6% in brassware and other metal related workplaces, and 5% in lathe machine workplaces.

Table 3.28
No. of Establishment and Employment in Light Engineering Sector in Kandy – 2013

S/N	Type of Work	Number of Firms				No. of workers
		>5 workers	3 to 5 workers	2 workers	Total	
Kandy						
1	Welding works	6	31	61	98	276
2	Iron work and steel fabrication	8	16	77	101	261
3	Lathe machine work		12	21	33	94
4	Production machinery and equipment repair		13	32	45	116
5	Agricultural machinery and equipment repair			102	102	204
6	Construction machinery and equipment repair	4	18	33	55	158
7	Brass wear and other metal related works		28	70	98	252
	Total	**18**	**120**	**391**	**529**	**1,360**
Matale						
1	Welding works		32	63	95	**254**
2	Iron work and steel fabrication		24	68	92	**232**
3	Lathe machine work		8	16	24	**64**
4	Production machinery and equipment repair		6	36	42	**96**
5	Agricultural machine mechanic			97	97	196
6	Construction equipment and machinery repair		6	32	38	**88**
7	Brass wear and other metal related works		9	36	45	**108**
	Total		**85**	**348**	**433**	**1,038**
NuwaraEliya						
1	Welding works		24	51	75	198
2	Iron work and steel fabrication		28	36	64	184
3	Lathe machine work		5	12	17	44
4	Production machinery and equipment repair		6	26	32	76
5	Agricultural machine mechanic			98	98	198
6	Construction equipment and machinery repair		6	22	28	68
7	Brass wear and other metal related works		5	14	19	48
	Total		**74**	**259**	**333**	**816**

Source: Field Survey, 2013.

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3.2.3. Employment Estimation by Occupation

The number of workers in different occupational categories of the light engineering sector was computed based on the estimated total employment. The number of welders in the sector was calculated based on the following formula:

The number of welders equals to workers in welding shops plus 10% of automobile engine repair and other repair workers plus 80% of construction machinery and equipment repair workers.

The number of machinists in the sector was calculated based on the following formula: number of machinists are equal to workers in production machinery repair places plus 10% of construction machinery repair workers.

The number of workers in other occupations in the sector is given by the employment in the respective industry category. The number of machine operators is equal to 20% of total workers in metal and other mineral quarries and crushers.

Table 3.29
Estimated Average Annual Average Labour Requirement in Light Engineering Sector

S/N	Occupation	No. of Workers-2013				Annual Average Worker Requirement under 10% growth rate of the industry (2014-2018)			
		Kandy	Matale	Nuwara eliya	CP	Kandy	Matale	NuwaraEl iya	CP
1	Welders	496	375	298	1,169	61	46	37	**144**
2	Iron and steel fabricators	260	232	184	676	32	28	22	**82**
3	Lathe machine operators	94	64	44	206	10	7	5	**22**
4	Machinists*	132	105	83	320	17	13	10	**40**
5	Agricultural machine mechanic	204	196	198	598	21	20	20	**61**
6	Foundry craftsmen	252	108	48	408	31	13	6	**50**
7	Heavy and light machine operators**	572	349	85	1,006	70	43	10	**123**
	Total	**2,010**	**1,429**	**940**	**4,383**	**242**	**170**	**110**	**522**

Note: * Production and construction machinery equipment.** Heavy machine operators in quarries and crushers. The number of establishment of metal and other mineral quarries and crushers in Kandy, Matale and NuwaraEliya are 356, 218 and 53 respectively. With a average number of workers of8 (based on the sample survey), the total number of employment in the sector is estimated to 2848 workers in Kandy, 1744 workers in Matale and 424 workers in NuwaraEliya.
Source: Field survey, 2013.

As given in Table 3.29, total workers in light engineering related occupations are 4383 in the province. It is distributed among districts as 2010 workers in Kandy, 1429 workers in Matale and 940 workers in NuwaraEliya. The light engineering workforce of the province distributed among occupations as follows: 1169 welders, 1006 heavy and light machine operators, 676 iron and steel fabricators, 598 agricultural machine operators, 408 foundry craftsmen, 320 machinists and 206 lathe machine operators.

3.2.4 Annual Average Labour Requirement

The annual average labour requirement of the light engineering sector was calculated by assuming a 10% growth in the number of workers from 2013 figures of each occupation category. The number of employment in each occupation category was predicated for the period 2014-2018. The year-to-year change of the predicted employment is given as the annual labour requirement. The annual average labour requirement was computed taking the simple average of annual labour requirement from 2014 to 2018. Table 3.29 also reports district-wise annual average labour requirement for each occupation.

The Central province requires 522 workers on average for its light engineering sector. Of this, 242 workers are needed in Kandy, 170 workers are needed in Matale and 110 workers are needed in NuwaraEliya. The sector needs about additional 144 welders for the province in which 61 welders need for Kandy, 46 welders need for Matale and 37 welders need for NuwaraEliya. Iron and steel fabrication workplaces in the province require 82 workers additionally each year. The district-wise need is as follows: 32 workers for Kandy, 28 workers for Matale and 22 workers in NuwaraEliya. The estimated average annual additional requirement of lathe machine workers in the province is 22 in which 10 workers for Kandy, 7 workers for Matale and 5 workers for NuwaraEliya districts. The light engineering sector of the province needs additional 40 machinists annually on average during the period 2014-2018. This 40 additional machinists distribute among the three districts as follows: 17 for Kandy, 13 for Matale and 10 for NuwaraEliya. As given in Table 3.29, the Province needs 61 additional agricultural machine and equipment mechanics yearly on average. These agricultural machine and equipment mechanics seem to be equally distributed (around 20 each) among the three districts. The province needs additional 50 foundry craftsmen to its metal craft industry annually. The majority of them are needed for the workplaces in Kandy. The light engineering sector of the Central province requires 123 additional machine operators annually. Of these 123 additional machine operators, 70 are required for Kandy district, 43 are required for Matale district and 10 are required for NuwaraEliya district.

3.2.5 Foreign Demand for Light Engineering Workers

One of aspect of Sri Lanka's foreign labour market is that the country is unable to meet the whole foreign demand for skills labour. Over the years, there was a huge demand for skilled labour from foreign countries but Sri Lanka was able to supply of a small fraction of the foreign demand. Based on Sri Lanka Bureau of Foreign Employment database, we compute the number of workers that the Central province can train for the foreign labour market. As is in the construction sector report, we find the unsupplied amount of foreign demand for skilled labour related to the light engineering sector. Assuming that the Central province trains about 10% of the unsupplied foreign labour demand, we compute the number of persons to be trained to send abroad. In this case, we assume that the foreign job orders remain at least at the number reported in 2011 for the next five years. Table 3.30 reports the estimated number of additional workers to be trained for foreign labour markets.

Table 3.30
Opportunities for Foreign Employment in Light Engineering Jobs

S/N	Occupation	Job Orders	Number of Departures for Jobs	Unsupplied Demand	Training requirement, if CP supplies 10% of unsupplied demand
1	Welders	3,516	755	2761	276
2	Iron and steel fabricators	3,337	570	2,767	277
3	Lathe machine operators	267	24	243	24
4	Machinists	946	152	794	79
5	Agricultural machine mechanic				
6	Foundry craftsmen				
5	Heavy machine operators	3,984	1,483	2,501	250
	Total	**12,050**	**2,984**	**9,066**	**906**

Source: Based on Annual Report of Sri Lanka Foreign Employment Bureau, 2012

As given in Table 3.30, the total number of foreign job orders related to light engineering sector occupations is about 12,050 in the year 2011. The country was able to supply only about 25% of these job orders. The lack of skilled workers in the country made only few turned for high earning foreign jobs. There were more than 9000 excess foreign job orders in the year.

In 2011, there were 3,516 foreign job orders for welders. The country was able to supply only a 14% of this foreign job orders. More than 2760 more welders can be sent for foreign jobs. If the Central province is able to train 10% of this excess foreign demand, the training institutes should train additional 276 welders in the province. The foreign demand for iron and steel fabricators was 3337 but the country supplied only 570 (17%) of this total demand. Another 2767 iron and steel fabricators can be sent to foreign countries. If the province can train 10% of this unsupplied foreign demand, iron and steel fabrication training should be given to another 277 persons in the province. The total foreign demand for lathe machine operators was 267 in 2011 but the country supplied only 24 operators in the year. The province can train additional 24 lathe machine operators to send to foreign labour markets. In 2011, foreign countries wanted to recruit 946 machinists from Sri Lanka. However, the country was able to supply only 152 machinists (16%) to foreign labour markets. If the Central province can train 10% of this unsupplied foreign demand for machinists, about 80 additional machinists to be trained annually focusing foreign markets. As given in Table 3.30, the total number of foreign job orders for heavy and light machine operators was 3,984 and total number of departures for the job was 1483 in 2011. About 37% of foreign demand was supplied in this category which was impressive compared to other occupation categories. However, still more than 2500 machine operators can be sent to foreign jobs. If the Central province can train a 10% of this unsupplied foreign demand, about 250 machine operators should be trained annually for foreign markets.

3.2.6 Total Training Requirement in Light Engineering Sector

This section reports the total training requirement in the light engineering sector of the Central province. The total training requirement given here is the summation of requirement for the local market and foreign markets. Table 3.31 provides the total labour training requirement for the light engineering sector of the Central province during 2014-2018 period. The light engineering sector of the province requires 1428 additional skilled workers annually for the next five years.

Of this total demand about 37% is for the local and market and the rest is for the foreign labour markets.

Table 3.31
Total Training Requirement in Light Engineering Sector
(Annual Average Requirement) 2014-2018

S/N	Occupation Category	Estimated Local Demand (No. of persons)	Estimated foreign Demand (No. of persons)	Estimated Total Demand (No. of persons)
1	Welders	144	276	**420**
2	Iron and steel fabricators	82	277	**359**
3	Lathe machine operators	22	24	**46**
4	Machinists	40	79	**119**
5	Agricultural machine mechanic	61		**61**
6	Foundry craftsmen	50		**50**
7	Heavy machine operators	123	250	**373**
	Total	**522**	**906**	**1,428**

Source: Field survey, 2013.

The training institutes should train 420 welders, 359 iron and steel fabricators, 46 lathe machine operators, 119 machinists, 61 agricultural machine an equipment mechanics, 50 foundry craftsmen and 373 heavy and light machine operators. Demand for welders, iron and steel fabricators, lathe machine operators, machinists and heavy and light machine operators include both local market and foreign market demand while training requirement of foundry craftsmen and agricultural machinery and equipment repair include only the local market need.

3.3 Automobile Repair and Service Sector

3.3.1 Background

The automobile services and repair sector includes vehicle engine repair, automobile electrical works, automobile air conditioning works, automobile painting and tinkering, motor cycle and three wheeler repair, tire works and repair, automobile service stations and motor cycle and three wheeler service stations. The lack of information on the registered number of companies or entities in the sector seriously affected the information collection. The list of entities registered with DS divisions is also less informative: there is no information on their size of operation such as small, medium or large, investment, number of workers employed, etc. A sample survey was conducted among the entities or firms registered with Divisional Secretariats under each activity category to identify the size of operation as given by the number of persons employed. Based on the percentage distribution revealed by sample survey, the total firms divided among firms with more than 5 workers, 3 to 5 workers and 2 workers in each divisional secretariat and then in each district. Table 3.32 gives the division of firms according to the number of employment. The number of employment is calculated using following method: multiply the number of firms by 5 if the employment is more than five persons, multiply the number of firms by 4 if the employment is in between 3 and 5 and multiply the number of firms by 2 if the employment is 2.

3.3.2 Number of Firms and Employment

Table 3.32 gives the estimated number of automobile repair and service firms in the Central province and their total employment. The total number of business entities in automobile repair and services sector was 1083 in Kandy in 2013. Of these 1083 firms, 8% of firms employ more than five workers, 38% of firms employ 3 to 5 workers and 54% of firms employ 2 workers. The activity-wise distribution of automobile related business firms in Kandy was as follows: 26% vehicle engine and other repair, 22% motor cycle and three wheeler repair, 8% auto electrical and motor winding, 12% automobile painting and tinkering, 8% tire works and repair services, 17% automobile service stations and 8% motor cycle and three wheeler service stations. The number of workers employed in the automobile sector in Kandy was estimated to be 3257 persons in 2013. The activity-wise distribution of automobile workforce in Kandy was as follows: 29% in vehicle engine and other repair, 16% in motor cycle and three wheeler repair, 6% in auto electrical and motor winding, 12% in automobile painting and tinkering, 6% in tire works and repair services, 23% in automobile service stations and 7% in motor cycle and three wheeler service stations.

The total number of business entities in automobile repair and services sector in Matale district was 683 in 2013. Of these 683 firms, 7% of firms employ more than five workers, 38% of firms employ 3 to 5 workers and 55% of firms employ 2 workers. The activity-wise distribution of automobile related business firms in Matale was as follows: 23% in vehicle engine and other repair, 16% in motor cycle and three wheeler repair, 5% in auto electrical and motor winding, 17% in automobile painting and tinkering, 8% in tire works and repair services, 14% in automobile service stations and 16% in motor cycle and three wheeler service stations. The number of workers employed in the automobile sector in Matale district was estimated to be

2084 persons in 2013. The activity-wise distribution of automobile workforce in Matale was as follows: 25% in vehicle engine and other repair, 14% in motor cycle and three wheeler repair, 7% in auto electrical and motor winding, 14% in automobile painting and tinkering, 6% in tire works and repair services, 20% in automobile service stations and 13% in motor cycle and three wheeler service stations.

Table 3.32
Number of Establishment and Employment in Automobile Sector – 2013

S/N	Type of Work	Number of Firms				No. of workers
		>5 workers	3 to 5 workers	2 workers	Total	
Kandy						
1	Vehicle engine and other repair	32	144	101	277	938
2	Motor cycle, three wheeler repair		24	210	234	516
3	Auto electrical and motor winding		20	65	85	210
4	Automobile painting and tinkering	12	42	76	130	380
5	Tire works, repair and services		19	67	86	210
6	Automobile service station	45	135		180	765
7	Motor cycle, three wheeler service station		28	63	91	238
	Total	**89**	**412**	**582**	**1,083**	**3,257**
Matale						
1	Vehicle engine and other repair	13	74	75	160	**511**
2	Motor cycle, three wheeler repair		43	65	111	**302**
3	Auto electrical and motor winding	0	12	52	37	**152**
4	Automobile painting and tinkering	8	32	62	116	**292**
5	Tire works, repair and services		11	44	55	**132**
6	Automobile service station	29	68		97	**417**
7	Motor cycle, three wheeler service station		32	75	107	**278**
	Total	**50**	**260**	**373**	**683**	**2,084**
NuwaraEliya						
1	Vehicle engine and other repair	18	56	72	146	458
2	Motor cycle, three wheeler repair		24	58	82	212
3	Auto electrical and motor winding		8	45	45	122
4	Automobile painting and tinkering	4	5	22	31	84
5	Tire works, repair and services		34	45	79	226
6	Automobile service station	12	36		48	204
7	Motor cycle, three wheeler service station		6	12	18	48
	Total	**34**	**161**	**254**	**449**	**1,354**

Source: Field Survey, 2013.

In NuwaraEliya district, there are 449 business firms engage in automobile repair and services in 2013. Of these 449 firms, 8% of firms employ more than five workers, 36% of firms employ 3 to 5 workers and 56% of firms employ 2 workers. The activity-wise distribution of automobile related business firms in NuwaraEliya was as follows: 33% vehicle engine and other repair, 18% motor cycle and three wheeler repair, 10% auto electrical and motor winding, 7% automobile painting and tinkering, 18% tire works and repair services, 11% automobile service stations and 4% motor cycle and three wheeler service stations. The number of workers employed in the automobile sector in the district was estimated to be 1354 persons in 2013. The activity-wise distribution of automobile workforce was as follows: 34% in vehicle engine and other repair, 16% in motor cycle and three wheeler repair, 9% in auto electrical and motor winding, 6% in automobile painting and tinkering, 17% in tire works and repair services, 15% in automobile service stations and 4% in motor cycle and three wheeler service stations.

3.3.3 Employment Estimation by Occupation

The number of workers in different occupational categories of the automobile repair and service sector was computed based on the estimated total employment of the sector.

The number automobile mechanics is given as 80% total employment in the vehicle engine and other repair workstations. The number of automobile electricians is equal to 10% of vehicle engine repair workers + 10% of construction machinery and equipment repair workers +workers in electrical motor winding shops. The number of automobile AC mechanics and repair workers is equal to 10% of the employment in vehicle engine and other repair workers. The number of automobile painters is equal to 60% of automobile painting and tinkering workers. The number of automobile tinkers and related workers is equal to 40% of automobile painting and tinkering workers. The number of service station semi-skilled workers is equal to 20% of automobile service station workers +20% of motor cycle and 3 wheeler repair workers. The number of workers in other occupations in the sector is given by the employment in the respective industry category.

Table 3.33
Estimated Average Annual Labour Requirement in Automobile Sector

S/N	Occupation	No. of Workers-2013				Annual Average Worker Requirement under 10% growth rate of the industry (2014-2018)			
		Kandy	**Matale**	**Nuwara eliya**	**CP**	**Kandy**	**Matale**	**NuwaraEl iya**	**CP**
1	Automobile mechanics	751	404	365	1,530	92	50	45	**187**
2	Automobile electricians and electrical motor winders	320	192	165	677	39	24	20	**73**
3	Automobile AC mechanics	94	51	46	191	12	7	6	**25**
4	Tire repair and service workers	210	132	226	568	26	16	28	**70**
5	Automobile painters	228	185	50	463	28	23	6	**57**
6	Automobile tinkers and related workers	152	123	34	309	19	15	4	**38**
7	Motor cycle and three wheel mechanics	516	308	212	1,036	65	40	32	**137**
8	Service station-semi skilled workers	201	117	50	368	25	14	6	**45**
	Total	**2,472**	**1,512**	**1,148**	**5,142**	**306**	**189**	**147**	**632**

Source: Field Survey, 2013.

As given in Table 3.33, the total employment of the automobile sector of the Central province was 5142 workers in 2013. About 48% of this total employment is in the automobile sector in the Kandy district. About 30% of the provincial automobile workers are in Matale district. The rest 22% was in NuwaraEliya district. The automobile workforce was distributed among different occupational categories as follows: automobile mechanics-30%, motor cycle and three wheeler mechanics-20%, automobile electricians and motor winders-13%, tire repair and service workers- 11%, automobile painters-9%, service station semi-skilled workers- 7%, automobile tinkers and related workers- 6% and automobile AC mechanics-4%. The district-wise distribution of workers among above occupations is not too different from the provincial distribution.

3.3.4 Annual Average Labour Requirement

The annual average labour requirement of the automobile sector was calculated by assuming a 10% growth in the number of workers from 2013 figures of each occupation category. The number of employment in each occupation category was predicated for the period 2014-2018. The year-to-year change of the predicted employment is given as the annual labour requirement.

The annual average labour requirement was computed taking the simple average of annual labour requirement from 2014 to 2018. Table 3.33 also reports district-wise annual average labour requirement for each occupation.

The Central province requires 632 additional workers on average for its automobile sector annually during the next five year period. About 306 additional workers are needed in Kandy, 189 workers are needed in Matale and 147 workers are needed in NuwaraEliya. The provincial automobile sector requires additional 187 automobile mechanics, 137 motor cycle and three wheeler mechanics , 73 automobile electricians and motor winders, 70 tire repair and service workers, 57 automobile painters, 45 service station semi-skilled workers, 38 automobile tinkers and related workers and 25automobile AC mechanics annually. In all occupation categories, automobile firms in Kandy require the largest number of additional workers compared to other two districts.

3.3.5 Foreign Demand for Automobile Workers

In this section, we estimate the potential foreign demand for automobile workers of the Central province. The unsupplied foreign demand for skilled labour related to the automobile sector is used to calculate skilled labour requirement for foreign markets. Assuming that the Central province trains about 10% of the unsupplied foreign labour demand, we compute the number of persons to be trained for foreign labour market. In this case, we assume that the foreign job orders remain at least at same the number reported in 2011 for the next five years. Table 3.34 reports the estimated number of additional workers to be trained foreign labour markets.

As given in Table 3.34, the total number of foreign job orders related to automobile sector occupations is about 4,687 in the year 2011. The country was able to supply only about 13% of these job orders due to the lack of skilled workers in the country. More than 4,000 additional skilled workers related to the automobile sector can be sent to foreign labour markets from Sri Lanka.

Table 3.34
Opportunities for Foreign Employment in Automobile Sector Jobs

S/N	Occupation	Job Orders	Number of Departures for Jobs	Unsupplied Demand	Training requirement, if CP supplies 10% of unsupplied demand
1	Automobile mechanics	2,894	262	2,632	263
2	Automobile electricians and electrical motor winders	1,039	284	755	76
3	Automobile AC mechanics	24	0	24	2
4	Tire repair and service workers	91	8	83	8
5	Automobile painters	433	59	374	37
6	Automobile tinkers and related workers	206	10	196	20
7	Motor cycle and three wheel mechanics				
8	Service station-semi skilled workers				
	Total	**4,687**	**623**	**4,064**	**406**

Source: Based on Annual Report of Sri Lanka Foreign Employment Bureau, 2012

In 2011, foreign countries demanded 2,894 automobile mechanics from Sri Lanka. However, the country was able to send only 262 mechanics abroad. This was just about 9% of total foreign demand for mechanics. The total foreign demand for automobile electricians was about 1039. The country was able to supply 284 automobile mechanics to foreign markets. The unsupplied number of automobile mechanic, automobile electricians, automobile painters, automobile tinkers, tire repair and service workers and automobile AC mechanics was 2,632, 755, 374, 196, 83and 24 respectively. If the Central province is able to train 10% of this unsupplied foreign job orders, the training providers should train 398 more workers related to above jobs. Based on that the Central province should train 263 additional automobile mechanics, 76 additional automobile electricians, 37 additional automobile painters, 20 additional tinkers and related workers, 8 additional tire workers and 2 more AC mechanics for the foreign job market.

3.3.6Total Training Requirement in Automobile Sector

This section reports the total training requirement of the automobile repair and service sector of the Central province. The total training requirement given here is the summation of requirement for the local market and foreign markets. Table 3.35 gives the total labour training requirement for the automobile sector of the Central province during 2014-2018 period.

Table 3.35
Annual Average Training Requirement of Automobile Sector, 2014-2018

S/N	Occupation Category	Estimated Local Demand (No. of persons)	Estimated foreign Demand (No. of persons)	Estimated Total Demand (No. of persons)
1	Automobile mechanics	187	263	**450**
2	Automobile electricians and electrical motor winders	73	76	**149**
3	Automobile AC mechanics	25	2	**27**
4	Tire repair and service workers	70	8	**78**
5	Automobile painters	57	37	**94**
6	Automobile tinkers and related workers	38	20	**58**
7	Motor cycle and three wheel mechanics	137		**137**
8	Service station-semi skilled workers	45		**45**
	Total	**632**	**406**	**1,038**

Source: Estimated values.

The Central Province is required to train 1038 additional skilled automobile workers annually for the next five years. These skilled workers are needed to cater for local and foreign demand. The training institutes should train 450 additional automobile mechanics, 149 additional automobile electricians and electrical motor winders, 27 automobile AC mechanics, 78 tire repair and service workers, 94 automobile painters, 58 automobile tinkers and related workers, 137 additional motor cycle and three wheeler mechanics and 45 service station semi-skilled workers annually on average. Demand for automobile mechanics, automobile electricians and electrical motor winders, automobile AC mechanics, tire repair and service workers, automobile painters and automobile tinkers and related workers include both local market and foreign market demand while training requirement of motor cycle and three wheeler mechanics and service station semi-skilled workers include only the local market need.

3.4 Household Electrical Equipment Repair Sector

3.4.1 Background

The household electric and electronic repair service sector includes phone and mobile phone repair, refrigerator and AC repair and household electrical appliances and equipment repair. The lack of information on the registered number of companies or entities in the sector seriously affected the information collection. The list of entities registered with DS divisions is also less informative: there is no information on their size of operation such as small, medium or large, investment, number of workers employed, etc. A sample survey was conducted among the entities or firms registered with Divisional Secretariats under each activity category to identify the size of operation as given by the number of persons employed. Based on the percentage distribution revealed by sample survey, the total firms divided among firms with 3 to 5 workers and 2 workers in each divisional secretariat and then in each district. Table 3.36 gives the division of firms according to the number of employment. The number of employment is calculated using following method: multiply the number of firms by 4 if the employment is in between 3 and 5 and multiply the number of firms by 2 if the employment is 2.

3.4.2 Number of Firms and Employment

Table 3.36 gives the estimated number of electrical and electronic equipment repair and service firms in the Central province and their total employment. The total number of business entities in sector was 395in Kandy. Of these 395 firms, 95% of firms employ two workers and only 5% of firms have more than 2 workers. Therefore, the operation of the sector is mostly taken place as small business entities. The activity-wise distribution of electrical and electronic service sector in Kandy was as follows: 22% in phone and mobile phone repair, 22% in refrigerator and AC repair and 56% in household electrical and electronic equipment repair.

The total number of business entities in electrical and electronic equipment repair and service sector in Matale district was 296 in 2013. Of these 296 firms, only 3% of firms employ 3 to 5 workers and 97% of firms employ 2 workers. The activity-wise distribution of electrical and electronic equipment repair firms in Matale was as follows: 22% in phone and mobile phone repair, 22% in refrigerator and AC repair and 56% in household electrical and electronic equipment repair. The number of workers employed in the sector was estimated to be 612 persons in 2013. The activity-wise distribution of electrical and electronic service sector in Matale was as follows: 22% in phone and mobile phone repair, 25% in refrigerator and AC repair and 53% in household electrical and electronic equipment repair

Table 3.36
Estimated Employment in Electrical Equipment Repaire Setor – 2013

S/N	Type of Work	Number of Firms				No. of workers
		>5 workers	3 to 5 workers	2 workers	Total	
Kandy						
1	Phone and mobile phone repair			88	88	176
2	Refrigerator and AC repair		18	69	87	210
3	Household electrical appliances and equipment repair			220	220	440
	Total		**18**	**377**	**395**	**826**
Matale						
1	Phone and mobile phone repair			66	66	**132**
2	Refrigerator and AC repair		10	55	65	**150**
3	Household electrical appliances and equipment repair			165	165	**330**
	Total		**10**	**286**	**296**	**612**
NuwaraEliya						
1	Phone and mobile phone repair			16	16	32
2	Refrigerator and AC repair			15	15	30
3	Household electrical appliances and equipment repair			89	89	188
	Total			**120**	**120**	**250**

Source: Field Survey, 2013.

The total number of business entities in electrical and electronic equipment repair and service sector in NuwaraEliya district was 120 in 2013 and all of these entities operate as small scale firms with the employment of two workers. The activity-wise distribution of electrical and electronic equipment repair firms in NuwaraEliyawas as follows: 13% in phone and mobile phone repair, 13% in refrigerator and AC repair and 74% in household electrical and electronic equipment repair. The number of workers employed in the sector was estimated to be 250 persons in 2013. The activity-wise distribution of electrical and electronic service sector in NuwaraEliya was as follows: 13% in phone and mobile phone repair, 12% in refrigerator and AC repair and 75% in household electrical and electronic equipment repair.

3.4.3 Employment Estimation by Occupation

The number of workers in different occupational categories of the automobile repair and service sector was computed based on the estimated total employment of the sector. The number of workers in other occupations in the sector was given by the employment in the respective industry category.

Table 3.37
Annual Average Labour Requirement in Electrical Equipment Repair Sector

S/N	Occupation	No. of Workers-2013				Annual Average Worker Requirement under 10% growth rate of the industry (2014-2018)			
		Kandy	Matale	Nuwara eliya	CP	Kandy	Matale	NuwaraEl iya	CP
1	Phone and mobile phone repairers	176	132	32	340	21	16	4	**41**
2	Refrigerator and AC repairers	210	150	30	390	26	18	4	**48**
3	Household electrical equipment repairers	440	330	188	824	44	33	19	**96**
	Total	**826**	**612**	**250**	**1,554**	**91**	**67**	**27**	**185**

Source: Field Survey, 2013.

As given in Table 3.37, the total employment of the electrical and electronic equipment repair sector of the Central province was 1554 workers in 2013. In which 340 workers are in phone and mobile phone repair, 390 workers are in refrigerator and AC repair, 824 workers are in household electrical appliances and equipment repair services. Of this total employment of the sector, about 54% are in Kandy, 40% are in Matale and 16% are in NuwaraEliya districts. The activity-wise distribution of electrical and electronic service sector in the province was as follows: 22% in phone and mobile phone repair, 25% in refrigerator and AC repair and 53% in household electrical and electronic equipment repair.

3.4.4 Annual Average Labour Requirement

The annual average labour requirement of the household electrical and electronic repair sector was calculated by assuming a 10% growth in the number of workers of the sector from its 2013 figures in each occupation category. The number of employment in each occupation category was predicated for the period 2014-2018. The year-to-year change of the predicted employment is given as the annual labour requirement. The annual average labour requirement was computed taking the simple average of annual labour requirement from 2014 to 2018. Table 3.37 also reports district-wise annual average labour requirement for each occupation.

The Central province requires 185 additional workers on average for the household electrical and electronic equipment repair sector annually during the next five year period. About 91 additional workers are needed in Kandy, 67workers are needed in Matale and 27 workers are needed in NuwaraEliya. The provincial electrical and electronic equipment repair sector requires additional 41 phone and mobile phone repairers, 48 additional refrigerator and AC mechanics, 96 household electrical equipment repairers. The district-wise distribution of additional requirement of phone and mobile phone repairers is as follows: Kandy-21, Matale-16 and Nuwara Eliya-4. The district-wise distribution of additional requirement of refrigerators and AC mechanics is as follows: Kandy-26, Matale – 18, and Nuwara Eliya-4. The district-wise distribution of additional requirement of household electrical and electronic equipment repairers is as follows: Kandy-44, Matale – 33, and Nuwara Eliya-19.

3.4.5 Foreign Demand for Household Electrical Equipment Repair Workers

In this section, we estimate the potential foreign demand for automobile workers of the Central province. The unsupplied foreign demand for skilled labour related to the sector is used to calculate skilled labour requirement for foreign markets. Assuming that the Central province trains about 10% of the unsupplied foreign labour demand, we compute the number of persons to be trained for foreign labour market. In this case, we assume that the foreign job orders remain at least at same the number reported in 2011 for the next five years. Table 3.38 reports the estimated number of additional workers to be trained foreign labour markets.

As given in Table 3.38, there is a foreign demand for refrigerator and AC mechanics. In 2011, the total number of foreign job orders for refrigerator and AC mechanics was 2011 and only 294 of that demand was supplied. The country may send another 1717 refrigerator and AC mechanics for foreign jobs. If the Central province is able to train 10% of this unsupplied foreign job orders, the training providers should train another 172 refrigerator and AC mechanics for the foreign markets.

Table 3.38
Demand for Foreign Employment in Electrical Equipment Repair Sector

S/N	Occupation	Job Orders	Number of Departures for Jobs	Unsupplied Demand	Training requirement, if CP supplies 5% of unsupplied demand
1	Phone and mobile phone repairers				
2	Refrigerator and AC repairers	2,011	294	1,717	172
3	Household electrical equipment repairers				
	Total	**2,011**	**294**	**1,717**	**172**

Source: Based on Annual Report of Sri Lanka Foreign Employment Bureau, 2012

3.4.6 Training Requirement in Electrical Equipment Repair Sector

This section reports the total training requirement of the automobile repair and service sector of the Central province. The total training requirement given here is the summation of requirement for the local market and foreign markets. Table 3.39 gives the total labour training requirement for the automobile sector of the Central province during 2014-2018 period.

Table 3.39
Total Training Requirement in Electrical Equipment Repair Sector
(Annual Average Requirement) 2014-2018

S/N	Occupation Category	Estimated Local Demand (No. of persons)	Estimated foreign Demand (No. of persons)	Estimated Total Demand (No. of persons)
1	Phone and mobile phone repairers	41		41
2	Refrigerator and AC repairers	48	172	220
3	Household electrical equipment repairers	96		96
	Total	**185**	**172**	**357**

Source: Estimated values.

The Central province is required to train 357 additional skilled workers for electrical and electronic equipment repair sector annually for the next five years. The training institutes should train 41 additional phone and mobile phone repairers, 220 additional refrigerator and AC mechanics and 96 household electrical equipment repair workers. The additional demand for phone and mobile phone repairers and household electrical equipment repairers is only from the local market while the additional demand for refrigerator and AC mechanics is from local and foreign markets.

3.5 Information and Communication Technology (ICT) Sector

3.5.1 Background

The ICT sector has changed radically since early computing days and the 'knowledge economy' is now taking on hitherto unseen dimensions where communication technologies have become forces of rapid social and economic change. ICT is one of the fast growing industrial sectors that can heavily contribute to generate employment, improve skills and incomes. This industry involves various activities relating to communication, designing and printing that paves the way for creation of an industrial sector with many facets and classifications. However, the development potential of this sector is faced with many challenges that are more complex than in other sectors in terms of increasing workforce diversity, designing and providing training programs appropriately to the current and emerging workforce in line with the rate of technological change. This section of the report provides general brief on the ICT sector in Sri Lanka and specifically focuses on identifying the current and future workforce requirement, training and skills for the ICT industry in the Central Province.

Although currently no primary or secondary data are available on the ICT employment at provincial level Export Development Board statistics show currently over 60,000 are employed in the ICT industry in Colombo and the workforce is growing at over 20% year-on-year. The workforce is stable with very low attrition rates ranging from 10-15%. Furthermore there are around 300 ICT companies are presently in operation in Sri Lanka. Annual exports of ICT sector is around 400 million US dollars in 2011. By 2015, it is expected that the IT/BPO (Business Process Outsourcing) industry will be the country's number one export revenue earner with exports of $2 billion and 103,025 jobs.According to Sri Lanka Association of Software and Service Companies (SLASSCOM; 2014) based on its own survey data said it was on track to reach a billion US dollar export target set for 2016 with 80,000 employees. By 2022 they expect to boost ICT exports to 5.0 billion US dollars amidst facing constraints in retaining qualified people.

The success of the ICT sector is determined much by the skills of its workforce and their competence to meet the industry's challenging opportunities and tasks. Hence the field is heavily open to creativity, innovation and entirely new ways of working, interacting and learning that should appeal to all categories in the society alike. The ICT sector is fast-paced and dynamic therefore the transitory nature of IT workers increases the need of organizations to rapidly train the new recruits to take over functions as well as to avoid the risk of having an IT staff with obsolete knowledge.

This suggests that ICT qualifications need to be extended to include rapid technological advances with a much broader spectrum – which in turn suggests that there may potentially be more employment openings that might attract the attention and interest of emerging workforce.Having understood these compelling socio economic reasons the successive governments of Sri Lanka have taken many progressive initiatives to uplift this sector making the opportunities wider for engaging. According to (Department of Census and Statistics) DCS 2009, the young generation (aged 15 – 19 years) in Sri Lanka shows thehighest computer literacy rate among all the age groups in 5 to 69 years and the older age groups beyond 50 years showcomparatively low computer literacy rate. Furthermore, the educational attainment and the computerliteracy are highly related and the higher the level ofeducation higher the computer literacy, in which the group of G.C.E. (A/L) and above particularly shows thehighest computer literacy rate close to 60 percent. Complementarily, the DCS 2009 survey results show, that the literacy in English language has greatlycontributed to raise the computer literacy as those who areliterate in English show nearly 3 times higher computerliteracy rate than the country level.

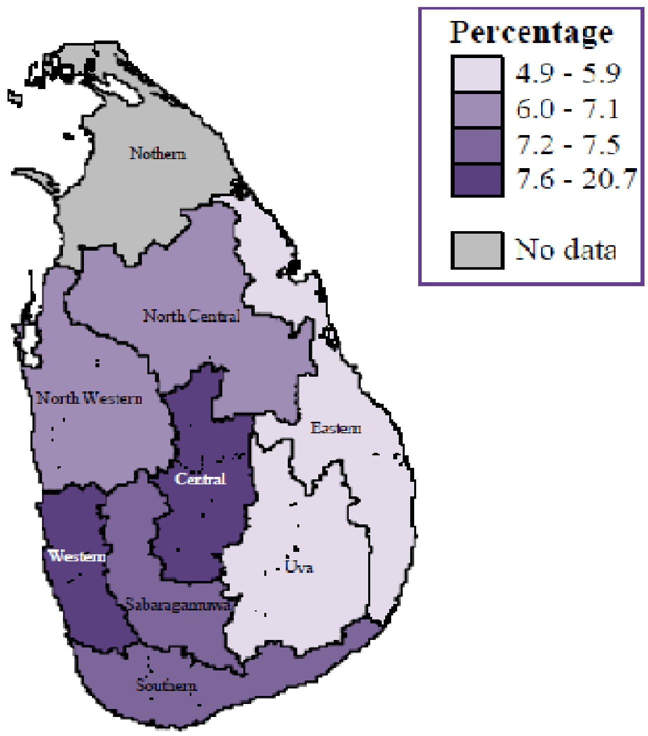
3.5.2 Provincial Data on ICT

Accepting this global challenge, the government of Sri Lanka expedited the move towards e-Sri Lanka in a vision to take the advantage of using the technology in total development of the country. Having initiated with a large investments on English language and ICT development projects, formally declared 2009 as the Year of English and Information Technology. The DCS was called to measure e–readiness of the public at large.

‘Digital divide’ is another measure of people’s access to have computers and online facility for which currently programs are underway to minimize this gap. So far DCS has conducted three household surveys (2004, 2006/07 and 2009 respectively) on computer literacy in facilitation for planning and implementing strategies to minimize 'digital divide'. According to the Computer Literacy Survey (CLS) of DCS results the computer ownership at household level has increased during 2004 to 2009 in every surveyed province of which North-Central and Sabaragamuwa provinces show the highest gain.

Figure 3.1

Household Computer Ownership (%) - 2009



Source: Computer Literacy Survey of Department of Census Statistics - 2009

The survey data further shows that there is an increasing trend in the acquisition of computer and the computer owned households over the last five year period starting from 2005. Table 1shows that at least one computer is available in one out of every ten households on average in Sri Lanka. The household computer availability in urban sector (23.6%), where a computer is available in one out of every four households is much higher than the rural sector (9.2%) and the estate sector (3.1%) in 2009.

According to the Table 3.40, the percentage of computer owned households in the Western Province is nearly two times greater than the country's average. This percentage in the Central

Province is 10.4 which is just below the country's average and almost half the percentage of Western Province. However, the progress of the Central Province is seemingly impressive and satisfactory compare with all other provinces except for the Western Province in term of computer ownership of households at provincial levels. The other noticeable point is the increasing trend in the percentage of computer owned households in all provinces, i.e. Island-wide over the reference period.

Table 3.40
Household Computer Ownership by Sector and Province - 2004, 2006/07 and 2009

Sector/ Province	Desktop (%)			Desktop or Laptop 2009
	2004	2006/07	2009	
Sri Lanka	**3.8**	**8.2**	**10.6**	**11.4**
Sector				
Urban	10.5	17.8	23.6	26.3
Rural	3.1	6.9	9.2	9.8
Estate	0.3	1.1	3.1	3.3
Province				
Western	8.4	16.4	19.0	20.7
Central	3.3	6.7	9.7	10.4
Southern	2.2	4.9	6.6	7.2
Eastern	1.2	3.7	5.8	5.9
North-western	3.1	4.8	6.9	7.1
North-central	1.4	2.7	6.1	6.8
Uva	0.4	2.7	4.6	4.9
Sabaragamuwa	2.0	3.3	7.3	7.5

Source: Computer Literacy Survey of Department of Census Statistics - 2009

Computer Awareness and Computer literacy

At a glance the two terms 'computer awareness and computer literacy' look similar the meanings are quite different. According to the Computer Literacy Survey of Department of Census and Statistics (2009), computers are used in wide range of applications from playing games to complicated aeronautic applications. If a person has heard at least of one of these uses, then he is considered as a person in computer awareness. Whereas a person is considered as a computer literate if he could use computer on his/her own. Table 3.41 provides statistical data on account of the behavior of two indicators across sectors and across provinces from 2006 to 2009. The percentages for the period 2011/12 have been estimated based on the growth rate of the previous period.

Table 3.41
Computer Awareness and Computer Literacy of Household Population (aged 5 - 69) by Sector and Province

Sector/ province	Computer awareness (%)			Computer literacy (%)		
	2006/07	2009	2011/12*	2006/07	2009	2011/12*
Sri Lanka	**37.1**	**43.8**	**51.7**	**16.1**	**20.3**	**25.6**
Sector						
Urban	47.4	60.0	75.9	25.1	31.1	38.5
Rural	36.9	43.0	50.1	15.1	19.3	24.7
Estate	10.3	15.8	24.2	4.3	8.4	16.4
Province						
Western	47.9	50.7	53.7	23.2	27.7	33.1
Central	31.0	34.8	39.1	14.8	18.0	21.9
Southern	43.2	45.0	46.9	15.6	19.8	25.1
Eastern	31.5	46.6	68.9	11.4	12.9	14.6
North western	31.8	42.1	55.7	12.6	16.5	21.6
North central	27.5	40.4	59.4	8.9	14.1	22.3
Uva	22.3	29.3	38.5	9.9	14.7	21.8
Sabaragamuwa	30.2	44.6	65.9	12.3	19.1	29.7

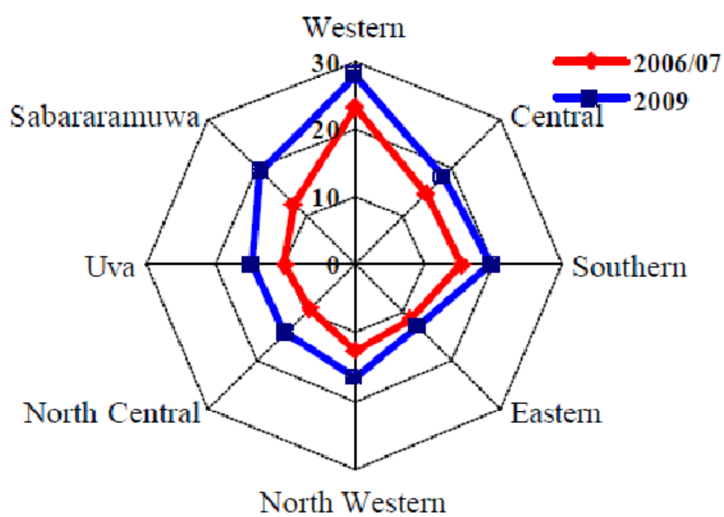
Source: Computer Literacy Survey of Department of Census Statistics - 2009
* Percentages for 2011/12 are estimated based on growth rate of the previous period.

As it is shown by the Table 3.41, the percentages of computer literacy and awareness have been increased over the referenced period in all the provinces. However, except for a trivial percentage value above 50 percent in Western province, all other provinces still perform at low percentages of computer literacy and awareness. Furthermore, Central province is not only below the country's average in terms of both indicators but also maintaining an exceptionally poor level of computer awareness when compare with other provinces (Table 3.41). Hence, it is important to draw the attention of local leaders, policy makers and practitioners regarding this relatively slow progress in ICT development in the Central Province. Generally the same trend is observed for the Central Province in terms of computer literacy as well. Figure 3.2 shows that Sabaragamuwa and Southern Province are also making a better progress in computer literacy than that of the Central Province. It is clear that the computer awareness has increased in all theprovinces from 2006/07 to 2009 and the Eastern Province and the Sabaragamuwa Province has gained about 50% increase over the reference period.

The low progress in computer awareness and literacy rates in the Central Province may be attributed to the lowest percentages of the two indicators reported from the Estate sector where

Nuwara Eliya is a main district. This is reflected by the district level data of DCS 2009 showing that Kandy and Matale perform equally well compare with other prominent districts such as Gampaha, Kalutara, and Matara. The lowest percentages for computer literacy and awareness have been reported from Nuwara Eliya and Monaragla. Nevertheless the Estate sector shows the highest growth of above 50% in both computer literacy and awareness during the period from 2006/07 to 2009.

Figure 3.2
Computer literacy (percentage) of population
(aged 05 - 69 years) by province - 2006/07 and 2009

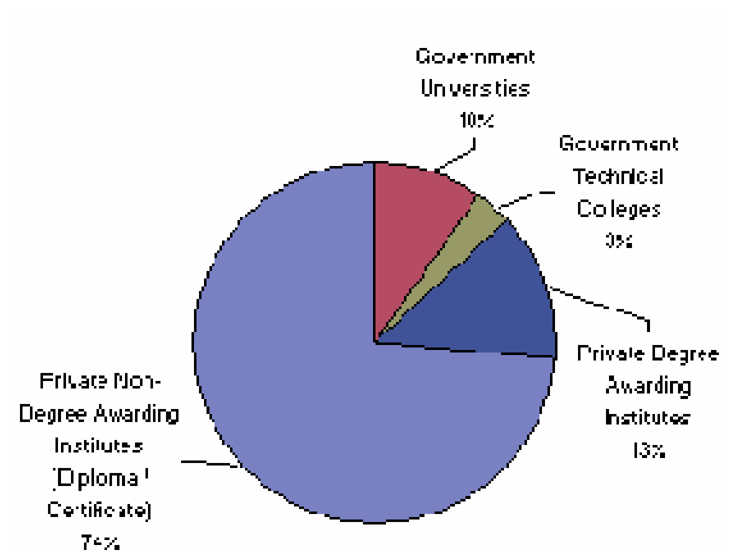


Source: Computer Literacy Survey of Department of Census Statistics - 2009

Source of computer Training

According to DCS survey on CLS (2009), the majority of those who are computer literate have received training from private institutions or school/university. Although the training received through government training centers are comparatively low (8.4%), a considerable portion of Rural sector (9.1%) and Estate sector(11.9%) computer literates have gained computer training from them bringing to notice that the Government training centers have contributed to increase the ICT know-how among those live in non-urban areas.The final report of KPMG Ford, Rhodes, Thornton & Co on ICT industry of Sri Lanka (2007), with slightly different dimensions to this assessment, shows that the majority of training organizations comprise of private sector non-degree awarding organizations offering a range of certificate and diploma courses as shown in Figure 3.3.

Figure 3.3
Composition of Types of Training Institutes Surveyed



Source: KPMG Ford, Rhodes, Thornton & Co on ICT industry of Sri Lanka 2007

Internet and e-mail use

According to the CLS of DCS 2009, about 13% of the population aged 5 to 69 years has used the Internet facility at least once during the last twelve months. The pattern of usingtheInternet among provinces is generally similar to the pattern of e-mail use. Also the urban sector, where the facilities are commonly available, shows higher use of both email and internet than in the non-urban sectors.

As shown it in Table 3.42, the e-mail use is about 12% of the household population aged 5-69 years who has used e–mail facility at least once during the last 12 months period. Highest e-mail use is reported from the Western Province (18.5%) followed by the Central province (12.3%).The lowest e–mail use (5%) among the provinces has reported by the North-western province.

According to the current initiatives of the provincial government of the Central Province computer education for emerging labor force is a high priority in its education policy (Daily News, 2010). A major feature of the new education policy is to provide a sound computer education to every child that enables to probe the outside world and satisfy their knowledge in ICT. Currently this effort is underway at school level in which out of a total of 1,470 schools in the Central Province 900 has been already provided with computer facilities. Another feature of the new education policy was to provide all students with a sound English education that conducive to use of ICT that enhancing as a life skill for better and wide range of employment opportunities.

Table3.42
Internet and E-mail Usage by Sector and Province -2009
(% of Household Population aged 05 – 69 years)

Sector/province	Used in last 12 months (%)	
	Internet	e-mail
Sri Lanka	**13.1**	**12.0**
Sector		
Urban	23.9	22.9
Rural	11.1	9.9
Estate	9.2	8.1
Province		
Western	19.2	18.5
Central	13.2	12.3
Southern	10.6	8.5
Eastern	11.4	10.5
North western	6.3	5.0
North central	10.4	7.9
Uva	9.4	7.2
Sabaragamuwa	8.1	7.1

Source: Computer Literacy Survey of Department of Census Statistics - 2009

3.5.3 Training and Employment in the ICT Sector

According to DCS 2009, there are many ways that the households receive their computer literary and training to use computers for multi-purposes including employing in the ICT sector. Also providing training programs in the ICT sector which in fact consists of Multi-functional branches and activities can enhance the potential to generate employment opportunities. As it shows in Table 3.43, private sector and schools/universities training programs provide 80% percent of the training requirements. However, the private sector involvement is comparatively less for rural areas.

Table 3.43
Computer Literate Household Population (%)
Aged 05–69 Years by Sources of Receiving Computer Knowledge and Sector – 2009

Source of computer training	Total	Residential sector (%)		
		Urban	Rural	Estate
Private training course	40.1	45.8	38.7	48.2
School/University	40.2	36.5	41.3	29.0
Govt. training centers	08.4	05.2	09.1	11.9
Employment activities	15.5	19.9	14.6	10.6
Work place	06.9	09.9	06.3	01.7
Family members	12.5	16.5	11.6	12.7
Friends/Relatives	16.3	18.8	15.9	06.0
Self	14.1	25.6	11.7	03.5
Other	02.6	04.8	02.1	03.6

Source: Computer Literacy Survey of Department of Census Statistics - 2009

Table 3.44
Small-Scale Firms Involved in Computer Related Activities
(Repairing/Training/Software Development/Sales)

District	Establishments/ Employment	2012	2013	2014	2015	2016	2017	2018
Kandy	# of Establishments	42	45	49	54	60	65	72
	Employment	270	312	406	527	685	891	1,158
Matale	# of Establishments	24	27	28	31	34	37	41
	Employment	231	277	360	468	609	792	1,029
Nuwara Eliya	# of Establishments	32	34	37	41	45	50	55
	Employment	265	295	384	499	648	843	1,095

Source: Field survey, 2013/14.

The employment opportunities in the ICT sector are growing at a fast rate in the central province. The data for ICT employment have been collected from the sample survey questionnaire in each district and its aggregated values of the number of establishments and employment including the forecasted values provided by firms regarding their prospects over the next few years. This trend is reflected by Table 3.44 showing the increasing number of small-scale firms that involve in computer repairing, training, software development and sales. The employment growth in these firms is estimated to be grown at 13% for the period 2013-2018. However, the medium-scale firms which is in small number is estimated to be grown at 12% over the same period due to many reasons such as difficulty to cope with the fast changing technology in the sector, lack of experience of the firms and shortage of expertise with managerial skills and skilled workers. Therefore, expansion in the medium-scale firms and their employment generation potentials in the province keep up with a relatively low phase. Of the three districts in the Central Province, the prospects for a greater expansion in the ICT sector can be expected from Kandy, Matale and Nuwara Eliya will have a moderate number in employment generation due to less number of such firms.

Table 3.45
Medium-Scale Firms Involved in Computer Related Activities
(Repairing/Training/Software Development/Sales)

District	Establishments/ Employment	2012	2013	2014	2015	2016	2017	2018
Kandy	No of Establishments	2	3	3	3	4	4	5
	Employments	75	175	210	252	302	363	435
Matale	No of Establishments	1	1	2	2	3	3	4
	Employments	65	155	186	223	268	321	386
NuwaraEliya	No of Establishments	1	1	2	2	3	3	4
	Employments	65	165	198	238	285	342	411

Source: Field survey, 2013/14.

Table 3.46 shows the workforce requirement in the main categories of ICT sector estimated based on the survey data. The total workforce requirement for each year is distributed among different categories as follows; software (20%), computer hardware technician (10%), computer graphic designer (30%), and computer operator/repairing (40%) respectively.

The workforce requirement consists of four main categories can be segmented into four main types of employment categories such i.e. Professional, Middle, Clerical and Skilled as shown in Table 3.47. For each category there is a foreign demand, therefore a part of the workforce is attracted by the foreign employment in the ICT sector. According to a recent survey of LBO (May 02, 2014) Sri Lanka's foreign revenues from software and business process outsourcing are higher than officially estimated, but growth is constrained by talent shortfalls, an industry body which has done its own survey said. This mismatch in terms of demand and supply for workers is provided by the Annual Statistical Report of Foreign Employment2011. Therefore, the total demand has been estimated as an addition of both local and foreign demand for ICT employment in the province.

Table 3.46
Estimated Labour Requirement in Computer Industry (for the Province)

Year	Software	Computer hardware Technician	Computer Graphic Designer	Computer Operators/ Repairing
2012	194	97	291	388
2013	276	138	414	552
2014	349	174	523	697
2015	441	221	662	883
2016	560	280	839	1,119
2017	710	355	1,066	1,421
2018	903	451	1,354	1,806

Source: Estimates

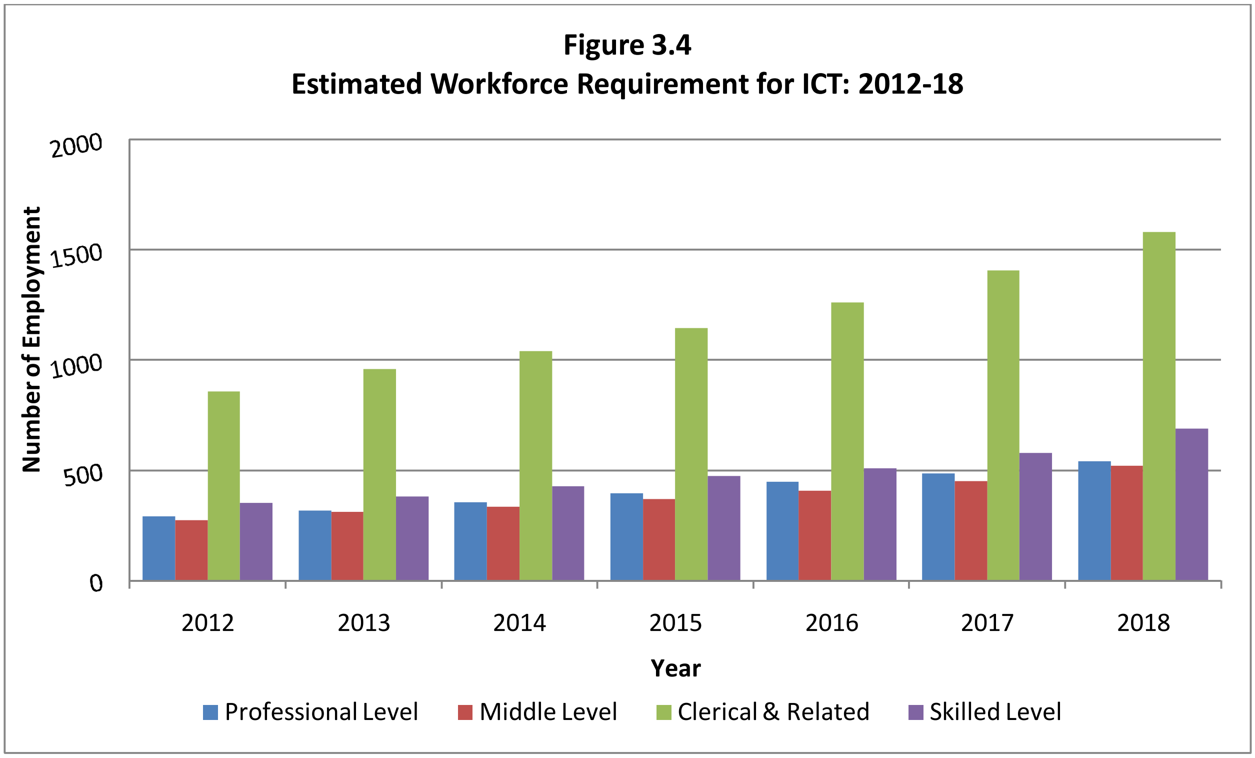
The Table 3.47 shows the forecasted workforce requirement for ICT in the Central Province for the period 2012-2018. It is expected that 10 percent of the ICT sector performance at national level is contributed by the Central Province. Employment generation has been estimated to be about 12-13 percent of annual growth rate for all employment categories including their sub categories. The average annual employment requirement for the CP is estimated approximately 2452, and therefore under the current phase of growth rate the labor market mismatches will be disappeared by 2018if training programs are arranged to accommodate this number of trainees on average.

The Figure 3.4 and 3.5 shows the demand for each category of employment and the trend in total employment in the sector respectively which is clearly an upward trend for the ICT sector in the Central Province over the next 4 years.There is a higher demand clerical & related employment and the demand for other employment categories is also growing but relatively at a slower rate.

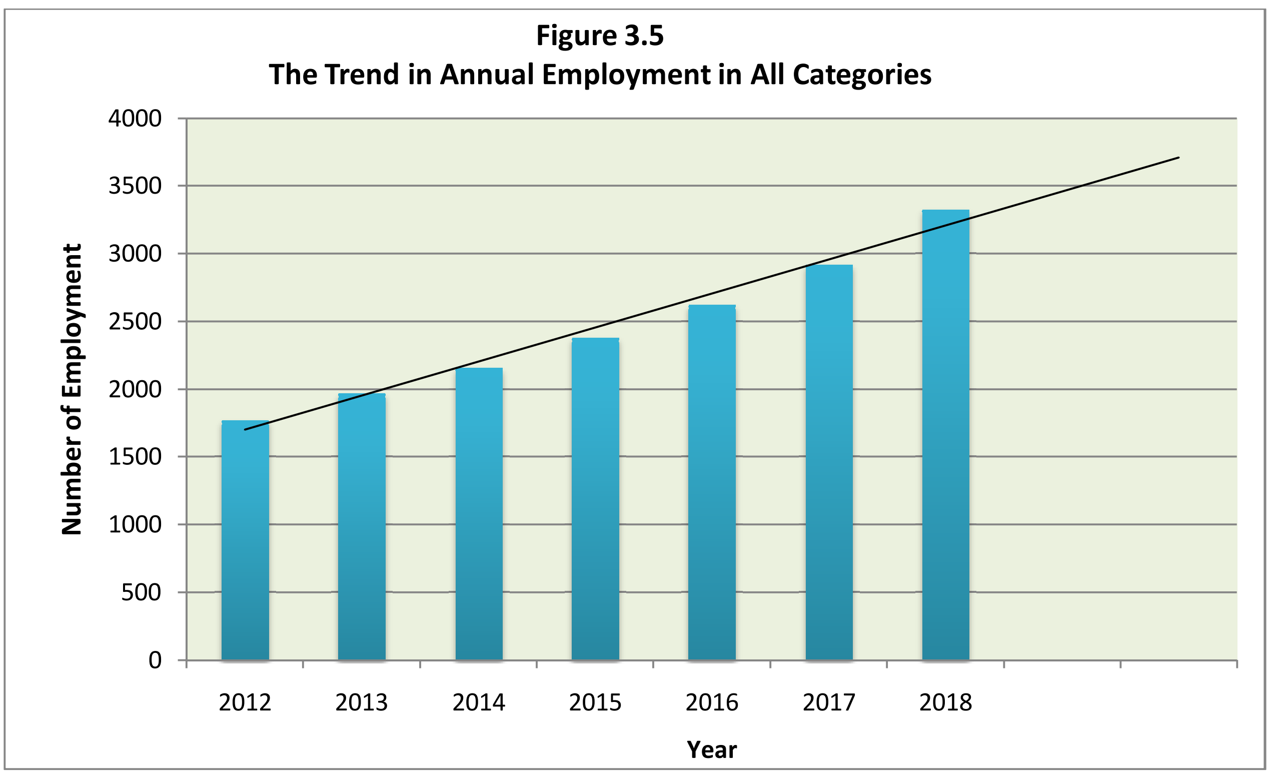
Table 3.47
Estimated Labour Requirement in ICT Sector of Central Province

Employment Category/Type	2010*	2011*	2012			2013	2014	2015	2016	2017	2018
Professional Level	Foreign	Foreign	Foreign	Local	Total	Total	Total	Total	Total	Total	Total
Researcher Internet	1	3	2	37	39	42	47	57	65	67	72
IT Sales Professional	0	2	1	70	71	74	86	97	110	116	125
Manager IT	0	2	1	72	73	78	83	91	98	107	118
Engineer-Computer Related	0	2	1	17	18	25	29	32	42	53	67
Other	3	2	3	98	101	110	120	130	142	153	168
Total	**4**	**10**	**7**	**295**	**302**	**329**	**365**	**407**	**457**	**496**	**550**
Middle Level											
Programmer-Computer	3	3	3	70	73	78	82	89	92	103	114
IT Person	3	0	2	48	50	56	61	66	76	85	98
Analyst-Systems	1	1	1	38	39	44	46	51	58	62	81
Programmer- Systems	0	1	0	22	22	28	32	36	46	53	66
Other	0	2	1	78	79	96	105	117	127	138	152
Total	**7**	**7**	**7**	**256**	**263**	**302**	**326**	**359**	**399**	**441**	**511**
Clerical & Related											
Operator- Data Entry	18	11	14	184	198	205	226	244	257	298	335
Operator- Computer	1	10	5	133	138	176	187	199	237	264	286
Designer- Graphic	3	5	4	174	178	197	212	238	267	282	326
Designer- Web	1	0	0	165	165	189	207	232	255	277	312
Other	0	0	0	188	188	201	217	241	254	296	332
Total	**22**	**26**	**23**	**844**	**867**	**968**	**1049**	**1154**	**1270**	**1417**	**1591**
Skilled Level											
Technician-Computer	7	4	6	172	178	187	195	203	216	236	282
Tech- Networking	0	2	1	34	35	45	57	66	71	84	98
Tech- Installation	0	2	1	46	47	51	64	72	80	98	116
Tech- IT	0	1	0	45	45	51	60	68	74	87	103
Other	0	1	1	35	36	38	42	56	58	64	79
Total	**7**	**10**	**9**	**332**	**341**	**372**	**418**	**465**	**499**	**569**	**678**

Source: Based on Annual Statistical Report of Sri Lanka Foreign Employment Bureau 2012



Source: Field survey, 2013/14.



Source: Field survey, 2013/14

3.5.4 Training and Employment inTelecommunication Industry

Telecommunication is a fast growing industry among other categories in ICT sector. Telephone operator, telecommunication technician and telephone technician are some of the highly demanded professions in the telecom industry. Table 3.48 shows the workforce requirement which includes both local and foreign demand for such employment created by each district in the Central Province. The forecasted demand for workers for the period 2015-2018 shows the number of persons that needs training to meet the total demand for telecom employment generated by the Central Province.

Table 3.48
Projected Workforce Requirement for Telecom Industry

District	Establishments/ Employment	2012	2013	2014	2015	2016	2017	2018
Kandy	**No. of Units**	179	196	216	238	262	288	317
	Employment	393	433	476	524	575	634	698
Matale	**No. of Units**	88	96	106	117	129	142	156
	Employment	176	194	213	234	258	283	312
N'eliya	**No. of Units**	290	319	351	386	424	467	513
	Employment	580	638	701	772	849	934	1,027

Source: Field Survey, 2013/14.

3.6 Printing and Publishing Industry

3.6.1. Background

At present, there are about 4,000 printing establishments providing employment opportunities to over 40,000 persons at national level. There are three printing schools in Sri Lanka, namely, Sri Lanka Institute of Printing, National Apprentice & Industrial Training Authority (NAITA), Institute of Printing and Graphics Sri Lanka Limited (INGRIN) at which many school-leavers is being trained. Sri Lanka produces good young printers with the local printing schools. This creates a greater opportunity to do outsource printing from Europe and rest of the world at Sri Lanka.

Sri Lankan printers are well-equipped with latest modern technological systems in use with multi-color printing machines of all global popular brands. Sri Lankan printing companies work to productivity levels which are considered highly acceptable by European standards. The Print products are currently being exported largely to the European Union. Keeping with the current phase in Sri Lankan manufacturers have expanded their range of products to include a variety of novel environmentally friendly items for which there will be a higher demand internationally. Other main export markets are Singapore, India, Venezuela, and Maldives (DCS/ASI – 2010).Sri Lanka is one of the countries that best for garment and tea so that these products demands very high quality printing that helps for marketing their products.

Support services to the printing industry begin with typesetting, designing and page make up services to plate making and plate setting. In the case of book printing finally ends with print finishing and binding (either perfect bound or case bound). High-speed perfect binders, three knife trimmers and case binding are now available in Sri Lanka. The printing of packaging materials are handled with modern technologies. As a result, Sri Lankan printers are now in a position to undertake any type of printing services for total packaging (tags, labels, cartons, sacks, sachets). Therefore, programs are needed to be in place to train the workforce in this industry which consists of many different sub fields with different professions/skills.

3.6.2 Number of Establishments, Labor Force and Training

According to Annual Survey of industries report of DCS 2011, currently there are about 4,000 printing establishments providing job opportunities to over 40,000 people locally (see Table 3.49). The figures in Table 3.49 show some publishing and printing industry data available for Central Province with the country level. The Central Province contributes relatively less in publishing and printing in 2009/10 and thus Central Province does not seem to be a main stakeholder in this industry. However, the updated secondary data on the number of establishments and employment are not available to understand the current status of the industry and employment at provincial levels.

Table 3.49
Number of Estblishments of Printing and Publishing Industry 2009/10
(Establishments with 5 or more persons engaged)

Establishments/ Employment	2009				2010			
	Country		Central Province		Country		Central Province	
	Number	%	Number	%	Number	%	Number	%
Number of Establishments	522	100	35	6.7	495	100	33	6.67
Persons engaged	14,382	100	349	2.43	18,127	100	331	1.83
Number of Employees	13,915	100	333	2.39	17,550	100	323	1.84

Source: Department of Census and Statistics, Annual Industrial Survey, 2011

The secondary data at provincial level are not available. However, understanding the different activities and related employment in small-scale and medium-scale establishments is important to expand and improve the industry and train the required workforce at provincial level. Table 3.50 and 3.51 provides secondary data from DCS 2011 regarding the two scales of establishments.

Establishments with less than 25 persons are mostly performed by the proprietors and unpaid family workers. The opposite of this phenomenon can be observed with the establishment with 25 or more persons engaged category as shown it in Table 3.50. However, provincial data are not available for both categories to make any spatial comparisons. The sub category printing of newspapers, journals and periodicals contributes the most employment in the industry.

Table 3.50
Employment Classification of Publishing and Printing Industry -2010
(Establishments with 25 or more persons engaged)

Establishments	Working Proprietors	Unpaid family workers	Operatives	Other employees	Total persons
Publishing, printing and reproduction of recorded media	2	0	267	95	360
Publishing of books, broachers, musical books	2	0	134	42	178
Publishing of newspapers, journals and periodicals	0	0	21	14	35
Other publishing	0	0	108	39	147
Printing & service activities related to printing	61	4	7,917	5,596	13,578
Printing of newspapers, journals & periodicals	55	4	7,625	5,492	13,176
Service activities related to printing	6	0	292	104	402

Source: Department of Census and Statistics, Annual Industrial Survey, 2011

Support services to the printing industry begin with typesetting, designing and page make up services to plate making and plate setting. In the case of book printing finally ends with print finishing and binding (either perfect bound or case bound). High-speed perfect binders, three knife trimmers and case binding are now available in Sri Lanka. The printing of packaging materials are handled with modern technologies. However still there is a shortage of skilled or trained workers in the industry in which there is a felt need for expanding training programs for prospective job seekers in this field. Highly demanded jobs in the printing industry is Printing supervisor, Operator- Printing (press) Machine, Printer- Off-set, Printer- Screen.

Table 3.51
Employment Classification of Publishing and Printing Industry - 2009
(Establishments with less than 25 persons engaged)

Number of Establishments	Working Proprietors	Unpaid family workers	Operatives	Other employees	Total persons
Publishing, printing and reproduction of recorded media	209	184	2,836	692	3,921
Publishing of books, broachers, musical books	0	0	38	2	40
Publishing of newspapers, journals and periodicals	0	0	21	14	35
Other publishing	0	0	108	39	147
Printing & service related to printing	61	13	6,742	3,164	9,979
Printing of newspapers, journals & periodicals	57	13	6,438	3,066	9,573
Service activities related to printing	4	0	264	92	360
Photocopies, computer printout etc.	0	0	40	6	46

Source: Department of Census and Statistics, Annual Industrial Survey, 2011

Table 3.52
Projected Workforce Requirement for Printing at Provincial Level

Scale of firm	Item	2013	2014	2015	2016	2017	2018
Small-scale firms	No. of establishments	44	48	53	58	64	71
	No. of Persons engaged	465	511	562	618	680	750
Medium-scale firms	No. of establishments	8	10	11	13	14	16
	No. of Persons engaged	35	39	43	47	52	57

Source: Field Survey, 2013/14.

According to the survey data and forecasted estimations shown in Table 3.52 a 10 percent growth in employment can be expected in the Central Province for the period 2013-2018. Other than only a few medium-scale firms most of the expansion in the industry will be taken place with small-scale firms. The average annual workforce requirement has been estimated to be 643 workers for the CP in which approximately 50 percent, based on the number of establishments available, is needed for Kandy district and the rest is evenly needed for Matale and Nuwara Eliya districts.

3.7 Textiles and Garment Industry

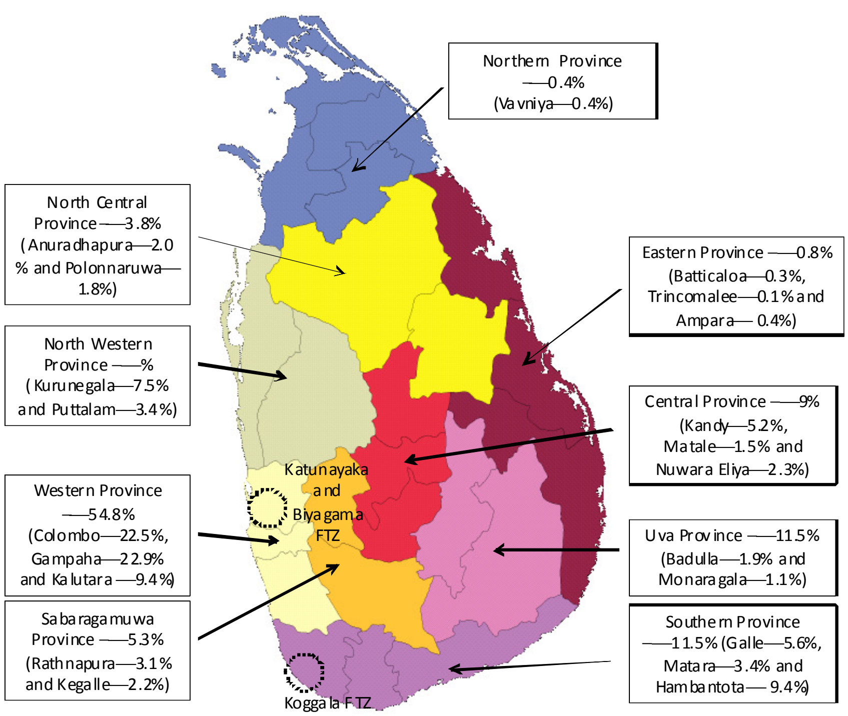
3.7.1 Background

The garment industry in Sri Lanka had a modest beginning in the 1960s as government took measures to promote the industry as an import substitute industry. This industry emerged as a leading industry of the country with the introduction of trade liberalization measures in 1977 and a variety of market oriented economic policy reforms. The policy reforms attracted the foreign investors, the East Asian garment exporters in particular, in the early stage and those exporters relocated their well-established garment factories to Sri Lanka. The secured market condition established by the Multi-Fiber Arrangement (MFA) until 2005 was one of the important factors that made attract the foreign investors to the industry in early stage of trade liberalization and later the domestic capital.

The industry employment generation mainly to the unskilled, young migrant from remote areas and women labor force is incredibly important. Specifically, it is the main income source of most of economically marginalized households in the rural areas. Today, the industry provides approximately 283,000 direct employment opportunities (Board of Investment, 2013) and approximately a half million indirect employment opportunities becoming it as the largest single employment provider in the industrial sector. The gender basis employment structure reveals that 85% of industry workers are female workers and over 60% of them are in the age group 18-25 (Oxfam Community Aid Abroad, 2004). Many studies have noted that workers long term reliance on this industry is low. Approximately 70% of the workers have less than five years of work experience. The five year working experience has become a clear cutline for leaving the industry because since then workers become eligible for gratuity and other benefits.

According to the geographical distribution of the garment factories, since 1980s, the high concentration of the factories in the Western province, which is one of the nine provinces of the country, can be seen. Figure 3.6 shows the garment factory distribution at provincial and district levels and it clearly shows that 54.8% of garment factories are located in the Western Province.This is largely due to the better infrastructure facilities in the region and establishment of the two Free Trade Zones; Katunayaka and Biyagama. In 1992, the government adopted measures to the garment manufacturers to move into other regions, providing a significant incentive package through BOI. The program aimed to overcome supply side constraints such as labor scarcity faced by the industry due to high concentration of the factories in the Western province and provide employment opportunities to rural population for the distributional purposes. This program was called 200 Garment Factory Program and by 1995, the BOI had set up 163 factories under the programme. In 1999, over 72% of garment factories were located in the Western Province providing employment to 65% (i.e. 181,329) of total work force in the sector (Thilakarathne, 2006).

Figure 3.6
Distribution of Garment Factories by Province (2004)



Source: Department of Labor and Oxfam (2004)

According to the garment industry survey report of the (Sri Lanka Labor Department and Oxfam, 2004), there were 750 garment factories consisting of 20% small, 53% medium and 28% large and extra-large scale factories. However, it is recently evident that a drastic decline of number of factories in the post MFA period of the country due to combined effect: merge of vulnerable manufacturers with potential manufacturers and closure down of the factories due to the influence of the MFA phase out. The number of factories decreased from 735 garment factories in 2004 to 325 in 2008. Despite the decreased number of factories, the overall volume of Sri Lanka's export has grown as larger firms have strengthened their international market position.

The garment factories in Sri Lanka are classified normally by size as follows:

1. Small – <100 employees
2. Medium –101 to 500 employees
3. Large – 500 > employees

3.7.2 Garment Industry

When the apparel industry in Central province is concerned totally 22,766 direct employment opportunities have been provided by 47 garments establishments. The variation of location of factories and workforce involvement among three districts in the Central Province are given in Table 3.54.

Table 3.54
Distribution of Garment Factories and its Workforce in Central Province

District	No. of garment factories	%	Workforce involved	%
Kandy	29	60	14,342	63
Matale	09	20	5,020	22
Nuwara Eliya	09	20	3,404	15
Total	**47**	**100**	**22,766**	**100**

Source: Field Survey, 2013/2014

The other significant factor of garment factories located in the province is the size of the plant. The plant size matters a lot in terms of employment opportunities. According to nationally accepted criteria of segmenting garment factories, Table 3.55 shows the status of size of factories among three districts in the province.

Table 3.55
Distribution of Garment Factories in Central Province by Scale

District	Small	Medium	Large	Total
Kandy	5	9	15	29
Matale	3	2	4	09
Nuwara Eliya	3	3	3	09
Total	**11**	**14**	**22**	**47**

Source: Field Survey, 2013/2014

3.7.3 Handloom Textile Sector in Central Province

The history of Handloom Textile in this country extends over 2500 years as it is connected with the legend of Prince Vijaya's arrival in this country. Yet, having such a long history, the industry is still remaining as one of the main household industry with many ups and downs in different eras in the country. With all of these ups and downs, it is reported that 55 Handloom workshops operated in the countryeven in 1920. Later, the decades of 60's 70's are considered as the golden era of handloom industry in Sri Lanka due to the encouragement and leadership provided by the government during those decades. At the same time, the highest number of installed looms recorded was 115,000 in 1977 prior to the introduction of the open economic policies in the country. After 1977, with many issues due to open economic policies, handloom industry was clustered around certain areas of the island, mainly in Western, North Western, Central, Southern and Eastern provinces.

The Central Province becomes the one of the important provinces in case of handloom textile industry. Yet, the industry experiences a downward trend in case of number of workshops operating in the province. According to the survey conducted by the study team, following workshops were identified in districts in the Central Province.

Table 3.56
Handloom Textile Sector in Central Province with No of firms 2013

Type of the firm	Kandy	Matale	N-Eliya
Textile industry (Power loom)	07	05	
Textile industry (Handloom)	01		
Textile processing	02	03	
Batik (large) > 10 employees	03	04	
Batik (small) <10 employees	67	28	14

Source: Field Survey, 2013/2014

The production of handloom in the province can be categorized as follows;

- Private-Companies, Individual entrepreneurs, self employed
- Government- Production centers managed by Provincial Councils
- Co-operative Societies.

3.7.4 Worker Profile of Garment Factories and Handloom Sector

Garment Industry Employment

In general, two types of worker categories can be identified in apparel industry in the Central Province. First category is unskilled worker group. When this group of workers is concerned nationally, recent studies reported that 85% of workers in the industry are women workers and they serve in low level grades in the factory. The majority of them are migrant workers from remote areas of the country, unmarried and young. This remains unchanged for unskilled workers in the Central Province also. These women workers are mostly with low educational qualifications and unskilled. The interviews with persons in industry management in the Central Province indicated that they mostly prefer unmarried young workers in the recruitment process. This preference is basically raised due to several reasons such as pregnancy, workers commitment to child care, etc. in case of recruitment of married workers. Second category, skilled worker group is concerned they are mostly occupied either managerial positions or technically oriented positions in the factory. They represent less than 5% of total workforce of the organization.

The other significant factor in terms of terms employees in the sector is that under the post-MFA scenario, there were about 130 garment factories were permanently closed down in the country and displacement of labour was observed mainly from the small scale garment factories. Garment factories located in Central Province was also experienced the same fate and had the declining trend of the industry in terms of number of factories. However, the displaced labour was absorbed by the large and extra-large factories, which have opened opportunities through the global markets for the workforce. Yet, aftermath of all scenarios, the following Table 3.57 elaborates the job categories in garment factories in the Central Province. This table shows only main job categories available in factories and these names of jobs as well as categories may vary from factories to factories. All the jobs in all factories in the Central Province were recognized as managerial and non-managerial positions. At the same time, it was very difficult to divide the job categories in the industry into two; managerial and non-managerial. Yet, categorization was done subjectively based on employee's attendance in the workplace.

Table 3.57
Types of Jobs and Job Categories in Garment Factories in the Central Province

Non managerial	Managerial
Machine Operators	Compliance officer
Helpers	IT executives
Checkers	Maintenance executives
Ironers	Production Manager
Clerical and allied grades	Cutting executives
Pattern Makers	Design officers
Cutters	Quality manager
Technicians	Human Resource Manager
Computer operators	

Source: Field Survey, 2013/2014

Table 3.58 gives apparel industry employees in the Central Province according to their age group and gender. It is obvious that female employees are dominated and their percentage is around 80% of whole workforce. Mainly, workers of age between 19 years and 29 years are engaged in apparel industry in the province.

Table 3.58
Apparel Industry Employment by Age Group and Gender

Age Group	Number of Employees					
	Females	%	Males	%	Total	%
18 >	52	81.25	12	18.75	64	0.28
19-22 years	7,270	87.34	1,054	12.66	8,324	36.56
23-25 years	5,669	84.95	1,004	15.05	6,673	29.32
26-29 years	3,765	79.35	980	20.65	4,745	20.84
30 <	2,204	74.46	756	25.54	2,960	13.00
Total	**18,960**	**83.28**	**3,806**	**16.72**	**22,766**	**100.00**

Source: Field Survey, 2013/2014

Even with the existing post-MFA era, most factories in the garment industry have created the following employment opportunities mainly for: machine operators, helpers, and checkers. These categories were accounted for nearly 90% of the total number of available job categories in the garment industry. This is shown by the following Table 3.59 clearly dividing all employees into two main categories: managerial and non-managerial.

Table 3.59
Job Categories and Workforce in Garment Factories

Non managerial	No. of employees	Managerial	No. of employees
Machine Operators	13,068	Compliance officer	12
Helpers	4,880	IT officers	176
Checkers	2,097	Maintenance executives	98
Ironers	943	Production Manager	22
Clerical and allied grades	574	Cutting executives	23
Pattern Makers	210	Design officers	12
Cutters	82	Quality manager	25
Technicians	358	Human Resource Manager	97
Computer operators	89		
Total	**22,301**		**465**

Source: Field Survey, 2013/2014

According to Table 3.59 above, the highest number of employees of the non-managerial capacity is reported from the job of machine operator. The least number of employees is reported under this category is from the job of cutter. In comparing to non-managerial positions, managerial positions in the garment industry in the Central Province are relatively few. Total number of managerial positions available in the Central province is 465 consisting eight job categories. The highest number of employees of a job is reported from IT officers. The lowest is represented by compliance and design officers.

Handloom Sector Employment

There are no reliable data available regarding the number of machines in operation and employment at present in workshops in each district in the Central Province. Sample survey conducted for this study generates following data as shown in Table 3.60.

The handloom industry in the Central Province is known as a highly labour intensive export oriented and a rural based industry. Even though the sector has declined over the years in terms of turnover and number of workshops, it has a significant employment generating potential and export earning opportunities if the industry takes a major shift from low priced commodity manufacturer to a market oriented high end product manufacturer. In order to develop the industry in the Central Province proper training opportunities for employees as well as an attractive market should be created.

Table 3.60
Handloom Textile Sector Employment in Central Province, 2013

Type of the firm	Kandy	Employees	Matale	Employees	N-Eliya	Employees	Total Employees
Textile industry (Power loom)	7	123	5	101	na	na	224
Textile industry (Handloom)	1	7	na	na	na	na	7
Textile processing	2	9	3	12	na	na	21
Batik (large) > 10 employees	3	56	4	109	na	na	265
Batik (small) <10 employees	67	256	28	68	14	140	464
Total	**80**	**451**	**40**	**290**	**14**	**140**	**981**

Source: Field Survey, 2013/2014

3.7.5 Future Workforce Requirement in Garment Industry

When the apparel sector in the Central Province is concern, non-managerial positions in factories will become a significant factor in terms of running factories in days to come. Due to various social, cultural and economic factors very few number of candidates are willing to engage in apparel sector as employees. Yet, when apparel sector growth rate is concern, Table 4.61clearly indicates the future non managerial worker requirement of apparel sector employees in order to maintain companies without troubles.

The non-managerial as well as managerial worker requirement of the Central Province is predicted through linear model assuming that the industry growth remains 2% in the years concerned. All other macro variables are kept as constant in predicting the number for the years to come. Accordingly the highest number of employees required for the year 2018 under non managerial category is reported for machine operator (14,145). The management related worker requirement is also given in Table 3.62.

Table 3.61
Non-managerial Worker Requirement in Apparel Sector in the Central Province

Non managerial	No of employees				
	2014	2015	2016	2017	2018
Machine Operators	13,068	13,329	13,596	13,868	14,145
Helpers	4,880	4,978	5,077	5,179	5,282
Checkers	2,097	2,139	2,182	2,225	2,270
Ironers	943	962	981	1,001	1,021
Clerical and allied grades	574	586	597	609	621
Pattern Makers	210	214	219	223	227
Cutters	82	84	85	87	89
Technicians	358	365	373	380	388
Computer operators	89	91	93	95	97
Total	**22,301**	**22,747**	**23,202**	**23,666**	**2,4139**

Source: Field Survey, 2013/2014

Table 3.62
Managerial Worker Requirement in Apparel Sector

Managerial	Number of employees				
	2014	2015	2016	2017	2018
Compliance officer	12	12	13	13	13
IT officers	176	180	183	187	191
Maintenance executives	98	100	102	104	106
Production Manager	22	22	23	23	24
Cutting executives	23	24	24	24	25
Design officers	12	12	13	13	13
Quality manager	25	26	26	27	27
Human Resource Manager	97	99	101	103	105
Total	465	474	484	494	503

Source: Field Survey, 2013/2014

The demand from foreign countries is also important in case of estimating the real worker requirement in an industry of a province. The potential foreign demand for apparel sector, in case of estimating the real workers requirement of managerial and non-managerial workers of the Central province, was taken into consideration. The unsupplied foreign demand for skilled labour related to the sector was used to calculate skilled labour requirement for foreign markets. Assuming that the Central province trains about 10% of the unsupplied foreign labour demand, the real workers requirement of the Province was computed. In this case, the calculations were based on the assumptions that the foreign job orders remain at least at same the number reported in 2011 for the next five years. Table 3.63 reports the estimated number of additional workers to be trained for foreign labour markets.

Table 3.63
Opportunities for Foreign Employment in Apparel Sector in (BasedYear2011)

S/N	Occupation	Job Orders	Number of Departures for Jobs	Unsupplied Demand	Training requirement, if CP supplies 10% of unsupplied demand
1	Machine operator	12,167	1,075	11,092	1,109
2	Loader	20	0	20	2
3	Supervisor – finishing	5	1	4	1
4	Supervisor	266	7	259	26
5	Machine mechanic	61	7	54	5
6	Pattern maker	49	2	47	5
7	Sorter	50	43	7	1
8	Helper	753	137	616	62
	Total	**13,371**	**1,272**	**12,099**	**1,211**

Source: Based on Annual Report of Sri Lanka Foreign Employment Bureau, 2012

In addition to the projection of employee requirement in the apparel sector in the Central Province, some specific features / qualitative data of the sector could be identified in the survey. Sufficient training of managers as well as non-managerial workers alike is an important factor constraining productivity and competitiveness in apparel sector in the Central Province. There is bit argument placed on the importance of training and its role in improving productivity and sustainability, by factor owners and managers. While most employees are trained during recruitment, this basic training is not enough to carry out their duties and task efficiently and effectively. Therefore, the apparel sector in the Central Province is in real requirement of outside training than in house training in order to improve the performance of their managerial and non-managerial employees working in the sector.

3.8 Hotel and Tourism Sector of the Central Province

3.8.1 Background

As a preamble to the sector report, the following quotation is obtained from *MahindaChinthana* policy document: *"I will introduce an accelerated development program for the tourism industry. I will launch a program to fulfill the infrastructure and other requirements in order to attract 2.5 million tourists annually, by the year 2016."* **(*MahindaChintana* 2010, p-94).**The vision of the government is to expand the tourism sector as a main economic growth sector in Sri Lanka.

This Sector Report focuses the behavior of the tourism sector in the Central Province with special reference to main elements of the sector, namely main tourist destinations, hotels and facilities available, and its impact on socioeconomic affairs, mainly on employment. The main attention has focused on the foreign tourists in the section. Finally, this section forecast the future demand for tourism thereby to identify the manpower needed in the sector, primarily vocational related employments, House Keeping such as stewards and waiters, Professional Cookery as cooks and chefs, Food and Beverages as barman, Front Office Operations such as receptionist and supervisory level managers, etc.

3.8.2 Profiles of Tourist Visits in Sri Lanka

According to Table 3.64, it can be identified that the majority of tourists visit Sri Lanka for seeking pleasure which is 80% and 74% in 2009 and 2012 respectively followed by business visits 8.6% and 9%. This indicates that the people travel mainly for the satisfaction they gain so that it is essential to upgrade the existing tourist destinations and identify new places which derive high level of satisfaction. Further, all foreigners after arriving Sri Lanka, would like to visit a few attractive places in and around Colombo. Therefore, it is very essential to maintain acceptable level of hospitality infrastructure to welcome all tourists in general, irrespective of the main purpose of visiting Sri Lanka.

Table 3.64
Purpose of Visiting Sri Lanka

No	Purpose of Visit	2009 %	2012 %
1	Pleasure	80.00	74.40
2	Business	08.60	09.00
3	Visit Friends and Relations	05.20	11.70
4	Convention and Meetings	01.40	02.20
5	Religious and Cultural	02.00	02.20
6	Other	02.80	00.50
	Total	**100.00**	**100.00**

Source: Sri Lanka Tourism Development Authority (SLTDA) Annual Statistical Reports 2009 and 2012

Sri Lanka was able to attract more than one million tourists since 2012 and year 2013 Sri Lanka surpassed record breaking 1.2 million tourists arrivals from all over the world as shown in Tables 3.65 and 3.66. As highlighted in the Table 3.65, India (16.4%) has been the main tourist origin followed by United Kingdom (10.8%) in 2013. Until 2009, UK was the most dominant country of tourist origin for Sri Lanka.

It is also very significant to identify some non-traditional countries of tourism such as Russia, China and the Middle East Countries in order to develop this sector. It is also noted that the end of 30-year long civil disturbances in the island will attract a fairly high tourists' arrival from all over the World. Some reputed journals, magazines on tourism and newspapers have rated Sri Lanka as the number one (01) destination with respect to security and location. Therefore, it is vital that all institutes responsible for developing tourism sector both public and private pay due attention to this potential tourists arrival in due course. If Sri Lanka wants to attract 1.5 million tourists by 2015, it is pertinent to develop all infrastructure facilities, societal to physical. Among them, easy access to known and unknown tourist destination is very much in focus. ***Different tourists' preferences should also be well thought out in the process of development of facilities.*** For example, some tourists like traditional hotels and places while another section may want eco-tourism. Presently, newer sections of tourist prefer agro-tourism while some visit for adventure related activities. Fortunately, Sri Lanka is bountiful of all aspects and it is the duty of respective tourist agencies to plan and implement the programs successfully.

Table 3.65
Tourist Arrivals from Different Countries in 2013

No.	Country of Residence	No. of Tourists	%
North America		65,616	
1	Canada	30,926	2.4
2	USA	34,690	2.7
Latin America and the Caribbean		3,166	
Western Europe		421,037	
3	Austria	11,300	0.9
4	Belgium	9,138	0.7
5	Denmark	9,845	0.8
6	France	64,388	5.1
7	Germany	85,470	6.7
8	Netherlands	22,281	1.8
9	Italy	17,982	1.4
10	Norway	8,573	0.7
11	Spain	8,183	0.6
12	Sweden	12,597	1.0
13	Switzerland	19,141	1.5
14	**UK**	**137,416**	**10.8**
15	Others	14,723	1.2
Eastern Europe		125,695	
16	Russia	51,235	4.0
17	Ukraine	38,607	3.0
18	Czech Republic	8,881	0.7
19	Poland	9,688	0.8
20	Others	17,284	1.4
Africa		8,081	
21	South Africa	3,366	0.3
22	Others	4,715	0.4
Middle East		80,509	
23	Saudi Arabia	23,753	1.9
24	UAE	8,471	0.7
24	Israel	8,545	0.7
26	Kuwait	7,427	0.6
27	Oman	7,634	0.6
28	Others	24,679	1.9
East Asia		183,097	
29	China PR including Hong Kong and Macau	54,288	4.3
30	Indonesia	17,295	1.4
31	Japan	31,505	2.5
32	Malaysia	19,181	1.5
33	Philippines	14,616	1.2
34	Singapore	15,546	1.2
35	South Korea	12,207	1.0
36	Others	8,851	0.7
South Asia		326,556	
37	**India**	**208,795**	**16.4**
38	Maldives	79,474	6.3
39	Pakistan	25,336	2.0

No.	Country of Residence	No. of Tourists	%
40	Bangladesh	10,037	0.8
41	Others	2,914	0.2
Australasia		60,836	
42	Australia	54,252	4.3
43	New Zealand	6,174	0.5
44	Others	410	0.0
Total		**1,274,593**	**100.0**

Source: Sri Lanka Tourism Development Authority, 2013 (Above tourist arrivals statistical estimates for the year 2013 were prepared after validating with the data received from the border control system of Department of Immigration & Emigration)

Table 3.66
Tourist Arrivals by Regions in 2013

No	Country of Residence	No. of Tourists	%
1	North America	65,616	05.2
2	Latin America & the Caribbean	3,166	00.2
3	Western Europe	421,037	33.2
4	Eastern Europe	125,695	09.9
5	Middle East	80,509	06.4
6	East Asia	183,097	14.5
7	South Asia	326,556	25.8
8	Australasia	60,836	04.8
Total		**1,274,593**	**100.0**

Source: Sri Lanka Tourism Development Authority, 2013

Table 3.67 indicates the period of stay of the tourists arrived in 2011 and 2012. Accordingly, nearly 90% of the tourists stay 01 night to 14 nights while less than 10% stay more than two weeks. This information highlights the fact that majority of tourists stay short period in Sri Lanka.

Table 3.67
Period of Stay in 2012

No	Period	2011 %	2012 %
1	01 – 03 Nights	26.1	25.9
2	04 – 07 Nights	32.1	33.4
3	08 – 14 Nights	31.1	30.8
4	15 – 21 Nights	07.9	07.5
5	22 – 30 Nights	01.2	01.0
6	31 Nights & Over	01.4	01.4
		100.0	**100.0**

Source: Sri Lanka Tourism Development Authority, 2013

Table 3.68
Accommodation Capacity (Rooms) in Graded Establishments and Regional Distribution in 2012

No.	Resort Region	Number of Rooms 2012	Target Number of Rooms 2016	Shortfall Capacity Year 2016
1	Colombo City	3,054	8,000	4,946
2	Greater Colombo	2,856	9,500	6,644
3	South Coast	5,660	13,400	7,740
4	East Coast	296	7,000	6,704
5	Hill Country	743	2,000	1,257
6	Ancient Cities	2,901	7,200	4,299
7	Northern Region	-	2,700	2,700
All Regions		**15,510**	**49,800**	**34,390**

Source: Sri Lanka Tourism Development Authority, 2013

Table 3.69
Frequently Visited Places by Tourists in Central Province

No.	Kandy	Matale	NuwaraEliya
1	DaladaMaligawa (Temple of the Tooth Relic)	Dambulla Temple	World's End (Horton Plains)
2	Royal Botanical Garden of Peradeniya	Riverston Mountains	Hakgala Botanical Garden
4	Pinnawala Elephant Orphanage	Aluvihare Temple	Gregory Lake
5	View places such as Hunas Falls	The Knuckles National Heritage Wilderness Area	Victoria Park
6	Cultural Show mainly EsalaPerahera	Kalapura	View places and Tea estates
7	Tea Museum	Sigiriya, Dambulla	Bandarawela
8	EmbekkeDevale	PitawelaPatana (Mini World’s End)	Hotel Tea Factory
9	Gadaladeniya Temple	Awkana Temple and Statue	Pidurutalagala (Mount Pedro)
10	Degaldoruwa Cave Temple	Minneriya Park	Pedro estate
11	Lankathilake Temple	Pidurangala Temple	Victoria Golf club
12	Hantana Tea plantations	Kalu Diya pokuna	Sri Pada (Adam’s Peak)
13	Town Visit	Pollonnaruwa	Water falls
14	Loolcondura Estate	Wasgamuwa National park	
15	Kandy Market		
16	National (Kandy) Museum		
17	Udawattekele Bird Sanctuary		
18	Victoria Golf Club at Digana		
19	Peradeniya University		

Source: Tourists Guide Books, Sri Lanka Tourist Board and Field Survey, August – October 2013

3.8.3 Main Tourist Destinations in Central Province

Table 3.69 shows the main tourist destinations or places visited by both foreign and local visitors in each District. Central Province is considered to be the most diversified and attractive land of the island due to locational advantages. This region located in the center of the island and has the tallest peak, Pidurutalagala and several other mountains. Climate is cool in the hills and moderate in most areas and some western part of Nuwara Eliya District has the highest annual rainfall. ***Each district in the Central Province maintains luxury it owns the nature and splendor. This spec of land also occupies the best tourist destinations in the island such as Temple of Tooth Relic in Kandy and Royal Botanical Garden at Peradeniya.***

3.8.4 Hotels and Related Information in Central Province

Table 4.70 highlights the existing number of hotels and other related establishments in Sri Lanka and Central Province. Due to salient features which attract both domestic and international tourists Central Province maintains a fairly reasonable tourism infrastructure. However, within the province, Kandy district dominates in all available facilities such as number of hotels, whether classified or not, restaurants, guest houses, travel agencies, etc. It should, however, be noted that Sri Lanka is facing a inadequate facilities in this sector due to remarkable boost taken place after end of 30-year long internal disturbances. Central Province is no exception.

Table 3.70
Summary of Contribution to Tourist Industry in Central Province

Name of the Tourist Sector Establishment	Total No of Establishments in Sri Lanka	Total No of Establishments in the Central Province	%	Contribution From Each District					
				Kandy	%	Nuwara Eliya	%	Matale	%
Hotels Classified	**109**	**26**	24	**13**	50	**7**	27	**6**	23
5 Star	13	**3**	23	**2**	67	**0**	00	**1**	33
4 Star	13	**4**	31	**1**	25	**2**	50	**1**	25
3 Star	13	**5**	38	**2**	40	**2**	40	**1**	20
2 Star	39	**7**	18	**5**	71	**1**	14	**1**	15
1 Star	31	**7**	23	**3**	43	**2**	29	**2**	28
Hotels Unclassified	**140**	**25**	18	**12**	48	**8**	32	**5**	20
Boutique Hotels	**19**	**3**	16	**1**	33	**0**	00	**2**	77
Boutique Villas	**25**	**8**	32	**4**	50	**4**	50	**0**	00

Name of the Tourist Sector Establishment	Total No of Establishments in Sri Lanka	Total No of Establishments in the Central Province	%	Contribution From Each District					
				Kandy	%	Nuwara Eliya	%	Matale	%
BB Units	**92**	**22**	24	**15**	68	**7**	32	**0**	00
Guest Houses	**292**	**79**	27	**42**	53	**18**	23	**19**	24
Heritage homes	**48**	**13**	27	**7**	54	**5**	38	**1**	08
Restaurant	**368**	**34**	09	**23**	68	**6**	18	**5**	14
Travel agencies	**487**	**10**	02	**10**	100	**0**	00	**0**	00
Tour shops	**144**	**37**	26	**26**	70	**2**	05	**9**	25

Source: Sri Lanka Tourist Board and Field Survey August – October 2013

Table 3.71 indicates the overall room capacity in Sri Lanka and Central Province. Central province has 16.7% of the total room capacity in the island. Even though data in the table do not supplement, it is the Western Province which contributes highest.

Table 3.71
Analysis of Room Capacity in Central Province

Classification	Total in Sri Lanka	Central Province	% Contribution of the Central Province	Kandy	Matale	NuwaraEliya
Hotels-Classified	9,289	1,722	**18.5**	794	527	401
Hotels-Unclassified	5,352	837	**15.6**	514	88	235
Boutique Hotels	344	61	**17.7**	10	51	N/A
Boutique Villas	161	51	**31.7**	30	N/A	21
BB Units	265	78	**29.4**	44	N/A	34
Guest Houses	5,521	733	**13.2**	397	156	180
Heritage Homes	252	60	**23.8**	31	3	26
Total	**21,184**	**3,549**	**16.7**	**1,320**	**825**	**897**

Source: SLTDA Annual Statistical Report 2009 and 2013

Table 3.72 shows the overall occupancy rate in main tourists regions as identified by Sri Lanka Tourist Board. Sri Lanka does not experience the full occupancy rate recently due to 30-year dragged war situation. Therefore, it is likely that Sri Lanka in general and identified tourist destination in particular could handle any progressively increasing tourists' arrivals. Yet it should also be noted that if it becomes a massive influx of tourists, the existing capacity would not sufficient. *Hence* ***it recommends that new hotels and facilities should be provided where this tourist influx is taken place,*** for example, Eastern Coast. Occupancy rate in Central Province, for example is 42.2% in 2009 signifies that the region is ready for today. *However****, this study suggests that it is not only adding new hotels/rooms but improving the quality of existing facilities is equally important.***

Table 3.72
Occupancy Rate by Tourist Region

REGION	**2005**	**2006**	**2007**	**2008**	**2009**
Colombo City	76.3	64.3	63.9	57.1	57.8
Greater Colombo	44.8	48.0	49.3	52.6	53.7
South Cost	31.8	41.2	47.6	46.1	49.6
East Cost	29.7	16.9	18.0	21.6	37.8
Hill Country	***36.6***	***39.9***	***41.2***	***34.2***	***42.2***
Ancient City	***39.5***	***43.3***	***40.3***	***35.2***	***44.4***
All Regions	**45.4**	**47.8**	**46.2**	**43.9**	**48.4**

Source: Annual Statistical Report 2009, SLTDA.

Table 3.73 presents the existing star graded hotels located in the Central Province with main information such as number of rooms, number of employees, occupancy rate, origin of tourists, etc. There are only 03 five star hotels in the region, and the largest with respect to number of rooms and number of employees located in Matale District namely, Heritance Kandalama. Other five star hotels are Mahaweli Reach and Earl's Regency which are located in Kandy City limits. Almost all hotels maintain more than 50% occupancy rate at the time of field survey. It is an important sign that leading hotels such as Heritance Kandalama and Earl's Regency experience the highest occupancy rate of 70%. It can be expected that the other hotels will pick up of the current momentum of tourist influx to their resorts.

As revealed in the survey, leading hotels in the region are patronized by local and foreign tourists equally and the dominant countries of origin for tourists are UK, France, Italy, Germany, Russia, Middle-East, Japan, India, and the Netherlands.

Table 3.73
Star Graded Hotels Located in the Central Province

No.	Name	No. of Rooms	No. of Employees	Occupancy Rate	Annual Tourists Arrivals		Main Countries
					Sri Lankan	Foreign	
Five Star Hotels							
Kandy							
1	Mahaweli Reach	112	220	47%	50%	50%	Russia, UK, France
2	Earl's Regency	104	214	70%	30%	70%	Italy, France
Matale							
1	Heritance Kandalama	152	398	70%	50%	50%	UK, Italy, Middle East
Four Star Hotels							
Kandy							
1	Amaya Hills	100	220	69%	30%	70%	Italy, Russia, UK and Middle-East
Nuwaraeliya							
1	Heritance Tea Factory	54	116	55%	30%	70%	UK, India, Germany
2	Grand Hotel	154	280	70%	32%	68%	UK, Russia, Middle-East
Three Star Hotels							
Nuwaraeliya							
1	Galway Lodge	52	87	72%	N/A	N/A	Russia, India, Japan
Two Star Hotels							
Kandy							
1	Topaz	73	119	50%	40%	60%	Russia, India, Japan
2	Hotel Hill Top	73	100	57%	25%	75%	France, German, Dutch
3	Casamara	35	54	60%	25%	75%	France, German, Dutch
4	Devon	27	42	N/A	N/A	N/A	Dutch, German
One Star Hotels							
Kandy							
1	Senani	27	30	60%	N/A	N/A	France, German, Dutch
2	Serene Garden	33	60	60%	25%	75%	German, France, India
3	Randholee Resorts	27	58	40%	40%	50%	Dutch, German, UK
Nuwaraeliya							
1	Windsor	49	30	42%	30%	70%	India, Australia, UK
Matale							
1	Sigiriya Village	120	170	31%	40%	60%	UK, Italy , Japan

Source: Field Survey, August - October 2013

Table 3.74 shows important information on selected gem and jewelry shops located in Kandy city in order to identify the current trends in tourist sector. It is inspiring to identify that all shops experience healthy rate of income growth, 10-95%. As revealed in Table 3.74, all shops are patronized by foreign tourists. According to the shop owners/managers there is a high demand for gems such as Ruby and Sapphire. Most of the gems are from Rathnapura and Eheliyagoda. They also revealed that the best buyers for expensive items are mainly from Europe.

Table 3.74
Surveyed Gem and Jewelry Shops Located in Kandy City

No.	Name	the business (Rs. Million)	Nature of the ownership	Employees	Income growth rate	Average Tourists per Month		Average Tourists per Year	Main Countries
						Peak	Off-Peak		
1	Hemachandras (Kandy)Ltd	More than 50	Private	60	40%	1,000	600	10,000	France
2	Lakmini	More than 50	Private	60	60%	3,000	1,500	5,000	UK, Germany
3	Prasanna Gems	More than 50	Private	50		700	500	5,000	UK, Russia
4	New Silk Garden	More than 20	Private	55	10%	7,000	5,500	60,000	France, Germany
5	Art Association	More than 05	Government Sponsored	9	50%	1,000	300	5,000	Europe Arabic
6	Laksala	N/A	Government	12	95%	3,000	1,000	25,000	Australia, German
7	Daswans Ltd	N/A	Private	4	30%	2,000	1,500	20,000	Europe, France
8	Zam Gems	More than 50	Private	62	40%	850	550	6,000	UK, Germany
9	Premadasa	More than 50	Private	55	55%	1,000	550	11,000	UK, Russia, India
10	Ayesha Jewellry	More than 50	Private	50	60%	3,000	1,500	30,000	UK, Germany

Source: Field Survey, August – October 2013

Table 3.75 presents important information on tourist visit to Botanical gardens in Sri Lanka. As identified Peradeniya Botanical garden located in Kandy District surpass both Hakgala and Gampaha in all aspects, number of tourists (local and foreign) and revenue collection. Total revenue of botanical gardens in Sri Lanka is Rs. 112. Million in 2008 and 83% of the revenue is generated by Peradeniya Botanical Garden alone. Attraction of the Peradeniya Botanical Garden can be highlighted with the fact that more than 25% of foreign tourists coming to Sri Lanka visit this magnificent location. *Recent facelift at the parking area is well deserved the appreciation of general public,* however, inside the botanical garden public amenities such as washrooms, cafeteria, etc. are well below the standard of comparable parks elsewhere in the World. Therefore, it recommends that Peradeniya Botanical Garden needs vigilant and caring attention since this location is the number one destination for foreign as well as local tourists.

Table 3.75
Tourist arrivals to Botanical Gardens and Revenue Recieved – 2008

Botanical Garden	Foreign Tickets		Local Tickets		Total Revenue (Rs)	Contribution to the Total Revenue (%)
	No of Foreign tourists	Revenue (Rs)	No of Sri Lankan tourists	Revenue (Rs)		
Peradeniya	117,427	68,838,300	997,997	23,728,385	92,566,685	**83**
Hakgala	5,871	3,353,400	508,913	11,691,615	15,045,015	**13**
Gampaha	127	75,000	197,443	4,600,170	4,675,170	**04**
Total	**123,425**	**72,266,700**	**1,704,353**	**40,020,170**	**112,286,870**	**100**

Source: SLTDA Annual Report 2009

Table 3.76 illustrates the main waterfalls in the Central Province and almost all are located in the District of NuwaraEliya. There is no way to identify the popularity of the place; however, ranking order is based on the experts' version of Tourist Board. Sri Lanka can be proud of the natural beauty and it is escalated by the waterfalls in hill country. Most of the waterfalls are running throughout the year due to gifts of nature: rain and forests. There are plenty of potentials to be obtained from these wonderful gifts given to Sri Lanka without harming and blaming them. Though expensive, recently built 'Mlesna Tea Fortress' capturing the scenic beauty of both Devon Falls and St Clair Falls located at near Talawakele is worthy of mentioning in this report.

Table 3.76
Most popular Waterfalls in Central Province

Rank	Name of the Waterfall	Height	Location	District
1	Ramboda Falls	109 m (358 ft)	Ramboda	NuwaraEliya
2	Laxapana Falls	129 m (423 ft)	Hatton	NuwaraEliya
3	Hunnas Falls	60 m (197 ft)	Wattegama	Kandy
4	St. Clair's Falls	80 m (262 ft)	Hatton	NuwaraEliya
5	Lovers Leap	30 m (98 ft)	Pidurutalagala	NuwaraEliya
6	Kurunduoya Falls	206 m (676 ft)		
7	Devon Falls	97 m (318 ft)	Talawakele	NuwaraEliya
8	Ahupini Ella	10 m (33 ft)		
9	Baker's Falls	20 m (66 ft)	Horton Plains	NuwaraEliya
10	Garandi Ella	100 m (328 ft)	Ramboda	NuwaraEliya
11	Rathna Falls	101 m (331 ft)	Hasalaka	Kandy
12	Doovili Ella	40 m (131 ft)		NuwaraEliya
13	Puna Falls	100 m (328 ft)		NuwaraEliya
14	Nanuoya Falls	60 m (197 ft)		NuwaraEliya
15	Elgin Falls	25 m (82 ft)	Ambewela	NuwaraEliya
16	Glain Falls	10 m (33 ft)		NuwaraEliya

Source: Magazines on Tourism and SLTDA Reports

3.8.5. Employment in Tourism Industry

As mentioned in 'MahindaChintana 2010' and 'Tourism Development Strategy 2010 – 2016' of the Ministry of Economic Development, the Government of Sri Lanka has set itself a target of 2.5 million tourist arrivals by 2016. In order to achieve this target, the required manpower is one of the major concerns that need attention and focus. The industry currently provides direct and indirect employment to approximately 150,000 persons and by 2016 it is estimated that there will be three to fourfold increase representing 500,000 employments. It is also estimated that the tourism will be the third largest foreign income-earner by 2016. Creating an additional manpower of 350,000 within three years seems uphill task based on the present capacity of the training institutes of both public and private sector. Human resources are the fundamental resource in any business. The lifeblood of Sri Lanka's tourism industry is its people. The people who serve tourism are the country's most attractive and vital force. Keeping this in mind, the Sri Lanka Tourism Development Authority (SLTDA) is dedicated to the development of human resources in the travel and tourism industry.

Currently plans are in place to train potential individuals who would be able to serve in professional managerial and operational capacities in the industry. Plans include the setting up of an Institute of Tourism that is similar to institutes such as CIMA and CIM, working alongside the public and private sectors in determining the entry level qualifications for managerial positions, and for providing travel and tourism training in the travel, tourism and MICE management sectors.

Human Resource Requirements of the tourism sector as identified by SLTDA are:

1. Food and Beverages
2. Professional Cookery
3. House Keeping and
4. Front Office Operations.

Sri Lanka Institute of Tourism and Hotel Management is specializing in these areas. As the annual output of about 1500 graduates is the industry requirement, incentives will be provided to promote skills in the industry. Meeting the human resources gap of in related services: Providing necessary training for tour guides, home stay hosts and other formal and informal sector service providers. Sri Lanka Institute of Tourism and Hotel Management is conducting short courses to meet these requirements as well.

Direct Employment in Tourism Sector

The employment generation due to the tourism industry has increased by 32% during 2008 – 2012 period. The persons employed directly in the tourism sector as at end of 2012 amounted to be 67,862 over the 2008 amount of 57,786 directemployment as shown in Table 3.77. Highest number of establishments in the tourism sector is Hotels and Restaurants followed by Travel Agents and Tour Operators. Most of the employees in the sector is in the category of Technical, Clerical and Supervisory followed by Manual and Operative and Managerial, Scientific and Professional respectively.

Table 3.78 and Table 3.79 highlight the percentage values of the direct employment of the tourism sector in 2012. Accordingly, hotel and restaurants having the highest number of units

(66%) employ the 70% of direct employees while travel agents and tour operators employ 9% of total direct employees of the tourism sector.

Table 3.77
Direct Employment in Tourism Industry - 2008 and 2012

Category of Establishments	Number of Establishments		Managerial, Scientific and Professional		Technical, Clerical and Supervisory		Manual and Operative		Total	
	2008	2012	2008	2012	2008	2012	2008	2012	2008	2012
Hotels and Restaurants	1246	1306	4895	6037	17202	22707	9529	19017	31626	47761
Travel Agents, Tour Operators	495	533	2027	2232	4201	3543	872	634	6725	6409
Airlines	20	29	770	814	3,480	3,591	994	1225	5,251	5,630
Agencies Providing Recreational	15	48	33	121	147	234	79	197	259	552
Tour Shops	144	52	230	117	1005	763	250	132	1485	1012
Guides	-	-	-	-	3460	3896	-	-	3460	3896
National Tourist Organization	4	4	87	133	121	148	105	129	313	410
State Sector	18	18	650	655	691	690	846	847	2187	2192
Total	**1942**	**1990**	**8692**	**10109**	**26479**	**35572**	**12675**	**22181**	**51306**	**67862**

Source: SLTDA Annual Statistics 2009 and 2012

Table 3.78
Direct Employment Composition (%) in Sub Sectors of Tourism – 2012

Category of Establishments	% of Establishments	% of Direct Employment			
		Managerial, Scientific and Professional	Technical, Clerical and Supervisory	Manual and Operative	% of Total in Direct Employment
Hotels and Restaurants	65.62	59.71	63.83	85.73	70.37
Travel Agents, Tour Operators	26.78	22.07	09.96	02.85	09.44
Airlines	01.45	08.05	10.09	05.52	08.29
Agencies Providing Recreational	02.41	01.19	00.65	00.88	00.81
Tour Shops	07.23	02.27	02.14	00.59	01.49
Guides	00.00	00.00	10.95	00.00	05.74
National Tourist Organization	00.20	01.31	00.41	00.58	00.60
State Sector	00.90	06.47	01.93	03.81	03.23
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: SLTDA Annual Statistics 2012

As depicted in the Table 3.79, Technical, Clerical and Supervisory category of employees represent 52% and Manual and Operative employees 33%. As revealed Managerial, Scientific and Professional category employees is the lowest, 15% indicating the ratio between managerial and non-managerial employees of the tourism sector as of 15:85.

Table 3.79
Direct Employment in Main Employment Categories of Tourism – 2012

No	Direct Employment Category	Number	%
1	Managerial, Scientific and Professional	10,109	14.89
2	Technical, Clerical and Supervisory	35,572	52.41
3	Manual and Operative	22,181	32.68
Total		**67,862**	**100.00**

Source: SLTDA Annual Statistics 2012, 2013

Table 3.80 shows the demand and supply (order and departure) of foreign employments of 2010 and 2011. This scenario highlights the fact that Sri Lanka has not been able to supply the demand created for tourism sector employments in abroad, mainly in Middle East countries. The demand-supply analysis indicates that Sri Lanka should pay a very high attention to both local and foreign job opportunities created in the tourism sector after ending the 30-year civil disturbances.

All job categories, Clerical and Related, Skilled, Semiskilled, and Unskilled show mismatch between demand and supply indicating a huge opportunity for training providers to increase the number of placements or enrolments as well as for aspiring youth to engage in foreign employments. Mismatch between demand and supply is nearly 100:15.

Table 3.80
Demand and Supply of Foreign Employment in Tourism – 2010 – 2011

No.	Job Category	2010		Gap	2011		Gap
		Demand (Order)	Supply (Departure)		Demand (Order)	Supply (Departure)	
1	**Clerical and Related**	**2,781**	**327** (12%)	**2454** (88%)	**2,259**	**299** (13%)	**1,960** (87%)
	Chef - Demi	342	26	316	142	17	125
	Chef – Executive	65	04	61	34	03	31
	Chef - Head	38	07	31	83	06	77
	Chef – Pastry	199	15	184	90	08	82
	Chef – Souse	97	07	90	86	11	75

No.	Job Category	2010		Gap	2011		Gap
		Demand (Order)	Supply (Departure)		Demand (Order)	Supply (Departure)	
	Chef – Commis	39	08	31	95	23	72
	Commis-First	790	83	707	384	58	326
	Commis-2nd	249	45	204	208	56	152
	Commis-3rd	215	53	162	227	41	186
	Commis Cook	57	10	47	116	17	99
	Head Barman	52	01	50	25	01	24
	Supervisor – Restaurant	102	04	98	59	03	56
	Supervisor-House Keeping	238	27	211	394	29	365
	Supervisor – Bar	21	01	20	06	00	06
	Supervisor – Catering/F&B	315	43	272	262	22	242
	Supervisor – Steward	58	06	52	48	04	44
2	**Skilled**	**3,907**	**769** (20%)	**3,138** (80%)	**1,846**	**270** (15%)	**1,576** (85%)
	Barman	396	37	359	249	19	230
	Chef	807	109	698	368	61	307
	Chef De Party	46	00	46	278	30	248
	Bartender	85	06	79	129	22	107
	Cook - Head	355	20	335	90	01	89
	Steward - Hotel	1,290	326	924	474	120	354
	Cook - Hotel	305	108	197	230	05	225
	Cook – Pastry	100	19	81	28	12	16
	Life Guard	569	144	425	00	00	00
3	**Semiskilled**	**1,884**	**324** (17%)	**1,560** (83%)	**1,830**	**285** (16%)	**1,545** (84%)
	Assistant Cook	734	125	609	594	106	488
	Attendant – Room	236	43	193	524	91	433
	Attendant - Pool	68	01	67	116	13	103
	Room Boy	530	115	415	442	57	385
	Waiter – Head	316	40	276	154	18	136
4	**Unskilled**	**5,352**	**872** (16%)	**4,480** (84%)	**5,105**	**890** (17%)	**4,215** (83%)
	Bar Attendant	19	01	18	14	02	12
	Bell Boy	104	12	92	144	19	125
	Food Server	400	98	302	439	142	297
	House Keeping Attendant	297	50	247	220	57	163
	House Keeper	431	51	380	433	49	384
	Waiter – Bar	87	14	73	35	08	27
	Waiter - General	3,365	611	2,754	3,104	598	3,006
	Waitress	649	35	614	716	17	699

No.	Job Category	2010		Gap	2011		Gap
		Demand (Order)	Supply (Departure)		Demand (Order)	Supply (Departure)	
	Total	**13,924**	**2,292** (17%)	**11,632** (83%)	**11,040**	**1,744** (16%)	**9,296** (84%)

Source: Sri Lanka Bureau of Foreign Employment (SLBFE) Annual Reports 2011, 2012

Indirect Employment in the Tourism Sector

It was estimated that the total indirect employment in the supplying sector in 2012 was estimated to be 95,007. Thus the total of both direct and indirect employment as a result of tourism in 2012 adds up to 162,869. This was a gradual increase of 17.4% over the figure of 138,685 recorded in 2011. The ratio of jobs generated, both directly and indirectly, to the number of tourist arrivals for the year review was, one job for every 6 arrivals. This phenomenon may continue resulting increased tourist arrivals create gradual increase of direct and indirect job opportunities. For example, if the present number of tourist arrivals taken into consideration, i.e. 1.2 million in 2013, number of direct and indirect job opportunities are 200,000.

Total Employment in the Tourism Sector

The Government of Sri Lanka in its Policy Reports based on the '***MahindaChintanaya*** ' has set a target of 2.5 million tourists arrivals by 2016. The tourism sector provides direct and indirect employment of 150,000 persons approximately. The expected personnel by 2016 is approximately 625,000. Creating an additional manpower of 500,000 within two years seems an uphill task. However, the Government with all training institutes and universities together should embark on viable national program to reach the most of the requirements of the tourism sector which will become the third largest foreign exchange by 2016.

3.8.6 Estimation of Future Tourism Sector Manpower Requirement

This section calculates the approximate number of 'Man Power' requirement under each category of employment, mainly a) Managerial, scientific and professional; b) Technical, clerical allied and supervisory; and c) Manual and operative.

A preliminary survey conducted (August – October 2013) to identify the actual number of job creations in the tourism sector during the period of 2012 to 2013, it has been revealed that a remarkable increase in the tourist arrivals taken place in the study area, yet, it was not possible to identify the actual number. However, based on the available relevant figures it has been calculated to be 1,000 – 2,000 direct employments were created during the period.

Based on the available data and information, the study has identified the number of direct employment in the tourism sector in the Central Province to be 67,862/6 = 11,310. The Research and Statistics Division of the SLTDA has projected that Sri Lanka's accommodation requirement to serve the needs of 2.5 million tourists in 2016 would be 49,800 rooms while the share of the Central Province was calculated to be 8,000 in 2016. Accordingly, additional number of 5,000 rooms needs to be built during 2012 – 2016. It implies that an average number of 1,250 rooms annually to be added to the room stock in the Central Province. As per the present industry standard, each new room creates two additional employment opportunities and the total manpower requirement calculated to be 10,000 during 2012 – 2016 **period on average of 2,500 persons per year at all occupational levels.**

Forecasting Method

Estimation of additional number of employment in tourism sector = 2,500

Human resource demand for non-managerial category (100 – 15) = 2,124

Human resource demand per occupation = 2,124/78

Human resource demand Factor = 27

Table 3.81 shows the estimated additional human resource demand for occupations in non-managerial levels and possible employment ratios among key job categories in a typical tourist hotel in Central Province.

Table 3.81
Estimation of Annual Manpower Demand in Tourism Sector in Central Province

NO.	Popular Occupations in Non-Managerial Levels	Employment Ratio	Annual Additional HR Requirement
1	Front Office/Receptionist	5	135
2	Chef	1	27
3	Chef de Party	6	162
4	Cook	10	270
5	Kitchen Assistant	6	162
6	Steward	7	189
7	Waiter	5	135
8	Barmen	2	54
9	Stores Worker	3	81
10	Room Boy	10	270
11	Pool Attendant	1	27
12	Mechanic	3	81
13	Electrician	4	108
14	Gardner	2	54
15	Security Staff	4	108
16	Cashier	1	27
17	Life Guard	2	54
18	Night Auditor	1	27
19	Middle Level Staff	3	81
20	Laundry Staff	3	81
TOTAL		**78**	**2,295**

Source: Calculation is based on the expert comments and the Field Survey 2013

Table 3.82
Manpower Requirement in Tourism Sector in Central Province 2014 – 2018

Occupational Level	2014	2015	2016	2017	2018
Managerial	344	380	417	459	505
Non-Managerial	1,951	2,145	2,361	2,597	2,857
TOTAL	**2,295**	**2,525**	**2,778**	**3,056**	**3,362**

Source: Estimates.

Estimated Manpower Requirement of Tourism Sector 2014 – 2018

After taking into consideration of all facts and figures of the above analysis, it has been able to forecast the manpower requirement of tourism sector in the Central Province as depicted in the Table 3.81. Ratio between managerial and non-managerial was estimated to be as of 15:85 and growth rate is calculated to be 10%. Accordingly, Table 3.82 summarizes the forecast of additional job requirement in the Central Province during 2014 – 2018.

3.9 Cottage Industry

3.9.1 Background

The cottage and small scale industry as the subsector industry significantly contributes to the national GDP as well as provincial GDP. In 2011, the sector was growing at 7%. Low initial capital, lack of innovativeness, home based, simple tools and equipments, locally available skills, are significant characteristics of this sector. Nevertheless, this sector plays a considerable role in the family economy as well as regional development particularly to the economically disadvantaged families. The Ministry of Traditional Industries and the National Crafts Council (NCC) have identified 19 industrial clusters in the country covering rush and reed, wood carving, wood based products, brass and silver based handicrafts, jewelry, bamboo and cane based products, gifts items/ornamental items, kithul based products, palmyrah based products, coir based products, leather and footwear, clay based products, food processing, soft toys, beauty culture, rubber based products, dress making, retail shops, chemical based products, paper based products, stone carving, electronics etc. In this section, we have discussed the cottage and small scale industry profile in the province based on the above classification.

Table 3.83 illustrates the cottage industry sector's contribution to the provincial Gross Domestic Product. It can be seen that the significance of the cottage industry sector in provincial GDP is continuously growing from 2006 to 2011. The contribution of the sector in Western and North Western Province is significantly higher than the other all provinces. These statistics will help to understand the economic significance of cottage and small scale industry sector in the province.

Table 3.83
Contribution of Cottage Industry to the Provincial GDP
(2005-2011) (Rs.million)

Year	Province								
	Western	Central	Southern	North	Eastern	North Western	North Central	Uva	Sabaragamuwa
2006	9,521	3,220	2,265	690	2,544	6,785	4,232	972	672
2007	10,732	3,459	2,599	606	2,599	8,466	4,484	1,131	811
2008	11,751	3,989	2,806	665	2,909	9,123	4,624	1,179	1,612
2009	12,407	4,209	3,296	818	3,097	10,983	4,924	1,254	1,187
2010	13,996	4,508	3,616	1,066	3,476	12,054	5,392	1,408	1,373
2011	16,242	5,177	4,505	1,413	3,590	13,410	6,191	1,816	1,594

Source: Department of Census and Statistics and Central Bank of Sri Lanka (2006-2011)

3.9.2 Profile of Cottage Industries in the Province

Table 3.84 shows the existing cottage and small scale industries in the province. Data indicated in the table has been collected from the records of DS offices and other government bodies. According to the table, the total number of enterprises or production units in the identified 23 cottage and small scale industries are 4389. The largest number of production units, 885, is reported in food products and food processing, followed by wood carving and carpentry (313), spice processing and packetting (308) and jewellery making (302). Kandy district has highest number of production units (1819), followed by Matale (855) and Nuwara Eliya (815).

Table 3.84
Cottage and Small Scale Industries in Central Province

S/N	Cottage Industry	Kandy	Matale	N/Eliya	Total
1	Spice processing and packetting	160	78	70	308
2	Milk products	22	36	15	73
3	Food products and processing	401	254	230	885
4	Hair Dressing/ Beauty culture	120	57	35	212
5	Incense making	21	12	40	73
6	Tea packaging	62	23	90	175
7	Mushroom cultivation packaging	120	67	50	237
8	Grinding mills	62	45	25	132
9	Wood carving and Carpentry	192	93	28	313
10	Leather and plastic products	33	07	03	43
11	Photography and studio	22	15	12	49
12	Foliage and Horticulture	64	33	35	132
13	Poultry farm and Animal husbandry	90	08	08	106
14	Soap and detergent	07	04	03	14
15	Match sticks and fire crackers	21	05	-	26
16	Ceramic industry	03	02	-	05
17	Private health care center	22	12	08	42
18	Jewellery	256	30	16	302
19	Clay Based Products	45	20	12	77
20	Black smithy	36	22	10	68
21	Ornamental Flower	60	32	125	217
	Total	**1,819**	**855**	**815**	**4,389**

Source: Databases of DS Divisions and Field Survey, 2013

Tables 3.85, 3.86 and 3.87 illustrate the district-wise estimated work force for each sub-sector in the province. Here, it should be noted that estimated work force has been calculated by assuming a 5% annual growth rate of the industry. By 2018, the highest number of estimated work forced is required for spice processing and packetting, followed by Jewelry products and wood carving and carpentry. This is common in Kandy and Matale districts. In Nuwara Eliya district, food product and processing requires the highest number of estimated workers and followed by tea packaging and ornamental flower production.

Table 3.85
Estimated Work Force of Cottage Industry in Kandy District

Cottage Industry	No. of Establishments	Labour Per Production Unit	Total Work Force (2013)	Estimated Work Force (Note –add.-additional)									
				2014	Add.	2015	Add.	2016	Add.	2017	Add.	2018	Add.
Spice processing and packetting	160	2	320	336	16	354	18	371	17	389	18	408	19
Milk products	22	3	66	69	3	71	2	75	4	79	4	83	4
Food products and processing	401	2	802	842	40	884	42	928	44	974	46	1023	48
Hair Dressing/ Beautyculture	120	2	240	252	12	265	13	278	13	292	14	307	15
Incense Making	21	2	42	44	2	46	2	48	2	50	2	52	2
Tea packaging	62	2	124	130	6	136	6	143	7	150	7	157	7
Mushroom Cultivation Packaging	120	2	240	252	12	265	13	278	13	292	14	307	15
Grinding mills	62	2	124	130	6	137	7	144	7	151	7	159	8
Wood Carving and Carpentry	192	3	576	605	29	635	30	667	32	700	33	735	35
Leather and plastic products	33	3	99	104	5	109	5	114	5	120	6	126	6
Photography and studio	22	2	44	46	2	48	2	50	2	52	2	55	3
Foliage and Horticulture	64	2	128	134	6	141	7	148	7	155	7	163	8
Poultry farm and Animal Husbandry	90	2	180	189	9	198	9	208	10	218	10	229	11
Soap and detergent	07	2	14	15	1	16	1	17	1	18	1	19	1
Match sticks and fire crackers	21	2	42	44	2	46	2	48	2	50	2	52	2
Ceramic industry	03	3	9	9	0	10	1	10	0	11	1	12	1
Private health care center	22	4	88	92	4	97	5	102	5	107	5	112	5
Jewelry Products	256	3	768	806	38	846	40	888	42	932	44	979	47
Clay Based Products	45	2	90	94	4	99	5	104	5	109	5	114	5
Blacksmith	36	2	72	76	4	80	4	84		88	4	92	4
Ornamental Flower	60	2	120	126	6	132	6	139	7	146	7	153	7

Source: Field Survey, 2013

Table 3.86
Estimated Work Force of Cottage Industry in Matale District

Cottage Industry	No. of Establishments	Labour Per Production Unit	Total Work Force (2013)	Estimated Work Force									
				2014	Additional	2015	Additional	2016	Additional	2017	Additional	2018	Additional
Spice processing and packetting	78	2	156	164	8	172	8	181	9	190	9	199	9
Milk products	36	3	108	113	5	119	6	125	6	131	6	138	7
Food products and processing	254	2	508	533	25	560	27	588	28	617	29	648	31
Hair Dressing/Beauty culture	57	2	114	120	6	126	6	132	6	139	7	146	7
Incense Making	12	2	24	25	1	26	1	27	1	28	1	29	1
Tea packaging	23	2	46	48	2	50	2	52	2	55	3	58	3
Mushroom Cultivation Packaging	67	2	134	141	7	148	7	155	7	163	8	171	8
Grinding mills	45	2	90	94	4	99	5	104	5	109	5	114	5
Wood Carving and Carpentry	93	3	186	195	9	205	10	215	10	226	11	237	11
Plastic products	57	3	171	188	17	207	19	228	21	250	23	275	25
Photography and studio	15	2	30	31	1	33	2	35	2	37	2	39	2
Foliage and Horticulture	33	2	66	69	3	72	3	76	4	80	4	84	4
Poultry farm and Animal husbandry	08	2	16	17	1	18	1	19	1	20	1	21	1
Soap and detergent	04	2	08	08	0	08	0	09	1	10	1	10	0
Match sticks and fire crackers	05	2	10	10	0	11	1	12	1	13	1	14	1
Ceramic industry	02	3	06	06	0	06	0	07	1	07	0	7	0
Private health care center	12	4	48	50	2	52	2	55	3	58	3	61	3
Jewelry	30	3	180	189	9	198	9	208	10	218	10	229	11
Clay Based Products	20	2	40	42	2	44	2	46	2	48	2	50	2
Blacksmithy	22	2	44	46	2	48	2	50	2	52	2	54	2
Ornamental Flower	32	2	64	67	3	70	3	73	3	76	3	79	3

Source: Field Survey, 2013

Table 3.87
Estimated Work Force of Cottage Industry in NuwaraEliya District

Cottage Industry	No. of Establishments	Labour Per Production Unit	Total Work Force (2013)	Estimated Work Force									
				2014	Additional	2015	Additional	2016	Additional	2017	Additional	2018	Additional
Spice processing and packetting	70	2	140	147	7	154	7	162	8	170	8	178	8
Milk products	15	3	45	47	2	49	2	51	2	54	3	57	3
Food products and processing	230	2	460	483	23	507	24	532	25	558	26	584	26
Hair Dressing/ Beauty culture	35	2	70	73	3	77	4	81	4	85	4	89	4
Incense Making	40	2	80	84	4	88	4	92	4	97	5	102	5
Tea packaging	90	2	180	189	9	198	9	208	10	218	10	229	11
Mushroom Cultivation Packaging	50	2	100	105	5	110	5	115	5	121	6	127	6
Grinding mills	25	2	50	52	2	55	3	58	3	61	3	64	3
Wood Carving and Carpentry	28	3	84	88	4	92	4	97	5	102	5	107	5
Leather and plastic products	03	3	09	9	0	10	1	10	0	11	1	12	1
Photography and studio	12	2	24	25	1	26	1	27	1	28	1	30	1
Foliage and Horticulture	35	2	70	73	3	77	4	81	4	85	4	89	4
Poultry farm and Animal Husbandry	08	2	16	17	1	18	1	19	1	20	1	21	1
Private health care center	08	4	32	34	2	36	2	38	2	40	2	42	2
Jewelry	16	3	48	50	2	52	2	54	2	56	2	58	2
Clay Based Products	12	2	24	25	1	26	1	27	1	28	1	29	1
Blacksmithy	10	2	20	21	1	22	1	23	1	24	1	25	1
Ornamental Flower	125	2	150	157	7	165	8	173	8	182	9	191	9

Source: Field Survey, 2013

3.9.3 Annual Average Labour Requirement

Table 3.88 presents the average annual labour requirement in the cottage industry and personal services sector of the Central province. The total additional labour requirement in the cottage industry is about 425 workers annually. Food processing, jewelry production, wood carving and carpentry, mushroom cultivation, hair dressing and beauty culture, grinding milling, ornamental flower, foliage and horticulture, milk production and private healthcare provision require the most of the above employment.

Table 3.88
Estimated Work Force of Cottage Industry in Central Province

Cottage Industry	Average Annual Labour Requirement (No. of workers)
spice processing and packetting	35
Milk products	13
Food products and processing	97
Hair Dressing/ Beautyculture	23
Incense Making	07
Tea packaging	20
Mushroom Cultivation Packaging	27
Grinding mills	15
Wood Carving and Carpentry	47
Leather and plastic products	07
Photography and studio	05
Foliage and Horticulture	15
Poultry farm and Animal Husbandry	12
Soap and detergent	01
Match sticks and fire crackers	03
Ceramic industry	01
Private health care center	10
Jewelry Products	54
Clay Based Products	08
Blacksmith	07
Ornamental Flower	18
Total	425

Source: Field Survey, 2013

3.10 Summary

This chapter identifies the following sectors as main economic sectors in the province: construction sector, light engineering sector, automobile repair and service sector, household electrical equipment repair services, information and communication industry, printing and publishing industry, textiles and garment industry, hotel and tourism industry and cottage industry. The sector reports compiled the information on number of firms, their production, future growth prospects, employment, future employment opportunities and training requirements under jobs/job categories. It is found that construction, hotel and tourism, light engineering, automobile sector, ICT sector, printing and publishing industries are fast growing sectors in the province. Further, some cottage industries especially food and beverages, personal services also significantly contribute to growth and employment generation. Though the growth rate has been arrested in recent decades, textiles and clothing industry is also a major employment generator of the province. The chapter paid attention to the potential supply of labour to the foreign market under relevant sector reports. The sector reports identify training requirements for a large number of jobs.

CHAPTER FOUR

SUPPLY OF SKILLED MANPOWER TO LABOUR MARKET OF CENTRAL PROVINCE

4.0 Overview

This chapter explains the supply of skilled labour into the labour market of the Central province. Section 4.1 explains the number of students (youth) available for TVET in the Central Province. Section 4.2 provides information on training institutions and course availability by type of training, training providers in three districts and the province. Section 4.3 gives the estimated number of registered students in vocational education programmes and the expected number of completion by districts and the province. This section also discusses the gap between demand and supply of skilled workers in the province. Section 4.4 discusses the institutional framework of the training providers of the province and issues faced by them. Section 4.5 gives a discussion on profile and issues related to persons who completed vocational education. Section 4.6 discusses the profile of current trainees and issued faced by them. Section 4.7 gives a summary of the Chapter.

4.1 Number of Students Available for TVET System

This section highlights the number of persons available for tertiary education and vocational training in the Central province. Table 4.1 gives the estimated number of youth available for vocational education and training in the province. This estimation is based on number of persons in education system and progression in education system annually.

The Central Province as a truly multi-ethnic region of the nation should pay a crucial attention in forecasting demand for tertiary and vocational training and identifying fields or areas for the same. As revealed in the socioeconomic analysis in Chapter 2 including educational attainment in the Province, it is possible to demarcate the boundaries for the forecast. Based on education statistics reported by the Central Bank of Sri Lanka, we obtained the number of students who failed to qualify for GCE (A/L) and university entrance for each district. We assume that 80% of students qualified for university entrance were not selected for university education. We obtain the total number of students who did not qualify for higher education by summing up number of students who failed to qualify for GCE (A/L), for university entrance and 80% of students who qualified for university entrance but not selected. We assume that 60% of above total students do not follow further studies and leave schools. Then we assume that 5% of new school entrants in both government and private schools drop out in between Grade 8 and Grade 11. The summation of number of students who did not qualify for higher level of education and leave education system and school drop outs from grades 8-11 is considered as the pool for VET programs.

As Table 4.1 gives, total number of youths available for VET programmes in Kandy is around 13,794 per year. The number in Matale and NuwaraEliya are respectively 4,370 and 6,485. The total number of youth available for VET is about 25 thousand in the Central province.

Table 4.1

Number of Students available for TVET Sector in Central Province

S/N	Category	Kandy	Matale	NuwaraEliya	Central Province
(1)	Number at GCE (O/L) failed to qualify for GCE (A/L)	7,501	2,660	4,795	**14,956**
(2)	Number at GCE (A/L) failed to Qualify for University Entrance	6,106	1,775	2,115	**9,996**
(3)	Assuming 80% of GCE (A/L) Qualified to Enter University but not Selected	7,551	2,150	2,727	**12,428**
(4)	Total Not Qualified for Higher Level of Education (1)+(2)+(3)	**21,158**	**6,585**	**9,637**	**37,380**
(5)	Assuming 60% of the Above Students Opt Not Continue and Leave School	*12,695*	*3,951*	*5,782*	*22,428*
(6)	New admissions in Government Schools	21,311	8,117	13,626	43,054
(7)	New admissions in Private Schools (multiplying private/government school student ratio by (6))	669	255	428	1,352
(8)	School Dropouts from Grade 8 - 11 (assuming 5% of new school entrants, (5)+(6), dropout in between Grade 8-11)	*1,099*	*418*	*703*	*2,220*
(9)	**Students available for VET programs (5)+(8)**	**13,794**	**4,370**	**6,485**	**24,648**

Source: Based on Economic and Social Statistics 2012-2013, Central Bank of Sri Lanka

In addition to these school leavers, a sizable number of adults is also available for VET programmes. The number of persons available for VET can be higher by another 10,000 if one per cent of the provincial population between 20 and 40 years of age enter into the VET system.

4.2 Profile of Training Institutions

In the analysis of training providers, it is clear that around 40% to 50% of all training providers / institutions in the Central Province are represented by private sector organizations. The same result could be seen in each district in the Central Province. Yet, the public institutions like Vocational Training Authority (VTA) and Department of Tertiary Education and Training (DTET) are dominated in the province in establishing many training centers in different locations/D.S. divisions. When three districts are compared in terms of number of training institutions available, Kandy district dominates by securing 115 institutes out of 184 institutes in the province.

Table 4.2 summarizes the number of institutions involved in vocational education and training in the province. There are 185 training institutions in the province offering various vocational education and training programmes. About 115 centers (62%) are in Kandy, 41 centers (22%) are in Matale and 29 centers (16%) are in NuwaraEliya. Of the 185 training centers of the province, 3% belongs to Colleges of Technology and Technical Colleges of DTET, 4% belongs to NAITA, 11% belongs to VTA, 3% belongs to National Youth Services Council (NYSC), 13% belongs to Department of Industrial Development and Enterprise Promotion (DIDEP), 17% belongs to other public institutions, 9% belongs to non-governmental organizations (NGOs) and 39% belongs to private sector training providers. Both NGO and private sector training institutes share 48% of total training centers in the province. However, the extent of the operation of private sector and NGO training centers is quite limited than that of government training institutes. Compared to Matale and NuwaraEiliya districts, the number of private sector training providers is relatively high in Kandy district.

The total 115 training institutes in Kandy district are divided as follows: 3% belongs to Colleges of Technology and Technical Colleges of DTET, 3% belongs to NAITA, 7% belongs to VTA, 2% belongs to NYSC, 9% belongs to DIDEP, 21% belongs to other public institutions, 9% belongs to NGOs and 47% belongs to private sector training providers. Both NGO and private sector training institutes share 56% of total training centers in the district.

The total 41 training institutes in Matale district are divided as follows: 5% belong to Colleges of Technology and Technical Colleges of DTET, 5% belongs to NAITA, 17% belongs to VTA, 7%

belongs to NYSC, 24% belongs to DIDEP, 5% belongs to other public institutions, 7% belongs to NGOs and 29% belongs to private sector training providers. Both NGO and private sector training institutes share 34% of total training centers in the district.

The total 29 training institutes in Nuwara Eliya district are divided as follows: 3% belongs to Colleges of Technology and Technical Colleges of DTET, 7% belongs to NAITA, 21% belongs to VTA, 3% belongs to NYSC, 14% belongs to DIDEP, 21% belongs to other public institutions, 10% belongs to NGOs and 21% belongs to private sector training providers.Both NGO and private sector training institutes share 31% of total training centers in the district

Table 4.2
Registered Training providers by District, 2013

Institute	Kandy	Matale	NuwaraEliya	Total
DTET	3	2	1	6
NAITA	4	2	2	8
VTA	8	7	6	21
NYSC	2	3	1	6
DIDEP	10	10	4	24
Other public	24	2	6	32
NGO	10	3	3	16
Private	54	12	6	72
Total	**115**	**41**	**29**	**185**

Sources: TVEC database-registered training providers in the Central province.

Note:
DTET -Department of Technical Education and Training (Colleges of Technology and Technical Colleges)
NAITA -National Apprentice and Industrial Training Authority (District and regional training centers)
VTA- Vocational Training Authority (District and regional training centers)
NYSC -National Youth Services Council
DIDEP –Department of Industrial Development and Enterprise Promotion

4.3 Number of Courses and Course Mix

The courses offered by training providers are summarized in this section. The course mix is identified using the list of NVQ accredited courses and the list of registered training providers provided by the TVEC for the year 2013.

Table 4.3
Number of NVQ and non-NVQ courses by Training Institute- 2013

District	Course	DTET	NAITA	VTA	NYSC	Other Public	NGO/ Private	Total
Kandy	NVQ accredited	51	8	42	7	6	46	160
	Non-NVQ	16	10	15	12	54	76	183
	Total	**67**	**18**	**57**	**19**	**60**	**122**	**343**
Matale	NVQ accredited	20	3	17	8	5	6	59
	Non-NVQ	7	1	11	4	10	35	68
	Total	**27**	**4**	**28**	**12**	**15**	**41**	**127**
NuwaraEliya	NVQ accredited	8	2	21	5	11	10	57
	Non-NVQ	2	3	6	3	6	11	31
	Total	10	5	27	8	17	21	88
Central Province	NVQ accredited	79	13	80	20	22	62	276
	Non-NVQ	25	14	32	19	70	122	282
	Total	**104**	**27**	**112**	**39**	**92**	**184**	**558**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.

The courses offered by training centers of DTET, NAITA, VTA, NYSC, all other government institutions and private and NGO training providers are given Tables 4.4, 4.5 and 4.6 in the three districts. In those tables, courses are given under sector-wise division: construction sector, light engineering, automobile, household electrical equipment repair, ICT, hotel and tourism sector, textiles and garment sector and cottage industry and personal services.

Kandy

As given in Table 4.4, there are 343 registered training courses in the Kandy district in total. Of that about 47% are NVQ accredited courses and most of them are offered by public training providers such as VTA, DTET, NAITA. Of the total number of courses, Colleges of Technology and Technical colleges offer 67 courses (20%), NAITA offers 18 courses (5%), VTA offers 57 courses (17%), NYSC offers 19 courses (6%), other public institutions offer 60 courses (17%) and private and NGO sector offer 121 courses (35%).

There are 64 training programmes related to construction sector labour training in the Kandy district. It is about 18% of the total training programmes of the district. Of that 64 courses on the construction sector training, 47% are NVQ accredited courses. In the sector Colleges of Technology (CoTs) and technical colleges offer the highest number of courses. The private and NGO training providers also contribute to the labour training of the sector significantly. Other public institutions and VTA offer 17% and 16% of the training courses of the construction sector. A large number of courses is available for wood craftsman and carpenter, and electricians. In addition to courses offered by DTET and VTA, other public institutions, especially, DIDEP offers courses in many different D.S. divisions in the district, especially in training carpenters.

In the light engineering sector, there are 27 training programmes in Kandy in which 22 are NVQ accredited courses. Of these 27 courses, 44% and 30% of courses are on training welders and machinists. Other courses are to train light engineering workers and aluminum fabricators. However, the sample survey reveals that some of these courses do not offer in regular basis due to shortage in students, lack of teachers and other facilities.

There are 29 training programmes to provide training required for the automobile sector in which 20 courses are NVQ accredited. The majority of them train automobile mechanics (48%), automobile electricians (17%), electrical motor winders (14%) and motor cycle mechanics (10%).

The registered training providers in Kandy offers 20 courses to train persons for the jobs of AC and refrigerator mechanic, mobile phone repairs and household electrical equipment repair in which 17 courses are NVQ accredited. More than 95% of these courses provide training for household equipment repairing including refrigerator and A/C repairs.

The training providers in Kandy, offer 79 training programmes related to ICT jobs and out of that 79 courses only 31 courses (39%) are NVQ accredited. Out of the total 79 courses, about 86% provide training for ICT technicians (20%), Computer Application Assistants (18%), Computer Graphic Designers (13%), Hardware technicians (13%), Computer Studies (9%), Web designers (8%) and network technicians. Other courses they offer are computer programming, multimedia operator, software technology, computerized accounting and desktop publishing.

There are 15 registered training courses with the TVEC in Kandy proving training for the workers in the hotel and tourism sector. Of these 15 courses seven courses are NVQ accredited courses. The training provides for the following jobs: hotel management and operation, restaurant and bar service, cook/cookery, room attendant, waiter/steward, tourism related housekeeping and tourism and travel services.

Registered training providers in Kandy offer 17 courses in training related to textiles and garment sector. Out of these courses only two are accredited. Programmes focus more on the provision of training for tailoring, sewing and dress making, embroidery, batik, patch work, curtaining and bead weaving.

There are 41 training programmes to train workers requited to the cottage industry in Kandy district. Of these 41 courses, 28 are NVQ accredited courses. About 70% of these courses training beauticians and hairstylists. Other courses offer are related to bakery, fruit and vegetable processing, food technology, agriculture/ farm management, production technology and jewelry manufacturing.

There are 52 registered courses to offer personnel services in Kandy district. Of these 52 courses, only 2 courses (3%) are NVQ accredited. The courses mostly provide the training for jobs related to marketing, accounting and management, preschool teaching, secretarial practice, nursing, counseling and psychology, banking, etc.

Table 4.4
Registered Courses and Training Programmess (NVQ and non-NVQ) in Kandy, 2013

S/N	Course/Training programme	DTET	NAITA	VTA	NYSC	Other public	NGO/ Private	Total	No. of NVQ accredited courses
1	Wood craftsman (furniture and building)	5		6		9	2	22	12
2	Construction equipment operator						7	7	4
3	Electrician	5	1	3	1	1	3	14	11
4	Construction technology	2						2	
5	Draftsmanship	2		1			1	4	
6	Plumber/Pipe fitter	2						2	2
7	Landscaping					2		2	
8	Construction site supervision	1			1			2	
9	Quantity surveying			1	1			2	2
10	Auto CAD						4	4	
11	Civil Engineering	3						3	
	Sub Total	**20**	**1**	**10**	**3**	**11**	**17**	**64**	**30**
12	Aluminum fabricator	2						2	2
13	Welder	5	1	4		1	1	12	12
14	Machinist	3	1	2			2	8	8
15	Light engineering					4		4	
16	Lathe machine operator					1		1	
	Sub Total	**10**	**2**	**6**		**6**	**3**	**27**	**22**

S/N	Course/Training programme	DTET	NAITA	VTA	NYSC	Other public	NGO/ Private	Total	No. of NVQ accredited courses
17	Automobile mechanic	3	1	3	2	2	3	14	10
18	Automobile technology	1						1	
19	Motor cycle mechanic	1		2				3	2
20	Three wheeler mechanic			1				1	1
21	Automobile electrician	3	2					5	5
22	Electrical motor winder			2			2	4	2
23	Automobile painter					1		1	
	Sub Total	**8**	**3**	**8**	**2**	**3**	**5**	**29**	**20**
24	Refrigerator and AC mechanic	5		2				7	7
25	Mobile phone repairer						1	1	
26	Radio, TV and household equipment repair	4	2	2	1		3	12	10
	Sub Total	**9**	**2**	**4**	**1**		**4**	**20**	**17**
28	ICT technician	2	3	4	1	2	4	16	10
29	Computer graphic designer				2	3	5	10	2
30	Computer application assistant	2	1	2	1	3	5	14	10
31	Web designer				1	1	4	6	
32	Hardware technician	2	2	2		1	3	10	6
33	Network technician	2		1		1	1	5	3
34	Computer studies				1	1	5	7	
35	Computer programming						2	2	
36	Multimedia operator						2	2	
37	Software technology						1	1	
38	Computerized accounting						2	2	
39	Desk top publishing /printing			1		1	2	4	
	Sub Total	**8**	**6**	**10**	**6**	**13**	**36**	**79**	**31**
40	Hotel management/operation						1	1	1
41	Restaurant and bar service					1		1	1
42	Cook /cookery			2		1	2	5	2
43	Room Attendant			1				1	1
44	Waiter/steward						1	1	1
45	Archaeology and tourism					2		2	
46	Housekeeping (tourism)			1		2		3	1
47	Tourism and travel flight service						1	1	
	Sub Total			**4**		**6**	**5**	**15**	**7**
48	Tailoring/sewing/dress making			2	1	1	5	9	2
49	Batik					1		1	
50	Embroidery works						4	4	
51	Curtaining						1	1	
52	Patch work						1	1	
53	Bead weaving						1	1	
	Sub Total			**2**	**1**	**2**	**12**	**17**	**2**
54	Beautician		1	8	3		5	17	15
55	Hair stylist			5	1		5	12	8
56	Baker						4	4	4
57	Fruit and vegetable processing	1						1	1
58	Food technology	1						1	

S/N	Course/Training programme	DTET	NAITA	VTA	NYSC	Other public	NGO/ Private	Total	No. of NVQ accredited courses
59	Agriculture/farm management					3		3	
60	Production technology	1						1	
61	Jewelry manufacturer	2						2	
	Sub Total	**5**	**1**	**13**	**4**	**3**	**14**	**41**	**28**
62	English typewriting						1	1	
63	Receptionist/ front office					1		1	
64	Basic competencies to work					1		1	1
65	Domestic housekeeping assistant								
66	Personal assistant /secretarial practice	3	2					5	3
67	Preschool teacher training					1	6	7	
68	Nursing /nurse assistant		1				3	4	
69	Pharmacist						1	1	
70	Bookkeeping						1	1	
71	Operation and maintenance of Gas chlorinators					1		1	
72	Presentation of television programs and news reports								
73	Production of television documentary and video technology						1	1	
74	Marketing, accounting and management	4				4	4	12	
75	Forestry					2		2	
76	Counseling and Psychology						4	4	
77	Banking and finance					2		2	
78	Co-operative development					2		2	
79	Social development					1		1	
80	Project analysis and management						1	1	
81	Ship security awareness						2	2	
82	Awareness program in leadership and personality development				2			2	
83	Personal safety and social responsibilities						1	1	
	Sub Total	**7**	**3**		**2**	**15**	**25**	**52**	**4**
	Grand Total	**67**	**18**	**57**	**19**	**60**	**121**	**344**	**161**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.
Note: Training Institute of DIDEP is included in other public institutions.

Matale

As given in Table 4.5, there are 126 registered training courses in Matale district in total. Of that about 52% are NVQ accredited courses and most of them are offered by public training providers such as VTA, DTET, NYSE, and other public institutions. Of the total number of courses, Colleges of Technology and Technical colleges offer 27 courses (21%), NAITA offers 4 courses (3%), VTA offers 30 courses (24%), NYSC offers 10 courses (8%), other public institutions offer 15 courses (12%) and private and NGO sector offer 40 courses (32%).

There are 22 training programmes related to construction sector labour training in the district. It is about 18% of the total training programmes of the district. Of 22 courses on the construction sector training, 55% are NVQ accredited courses. In the sector CoTs and technical colleges offer the highest number of courses (45%). VTA and other public institutions contribute to the rest by offering 36% and 18% of the training courses of the construction sector respectively. A large number of courses isavailable for the training wood craftsman and carpenter, electricians, draftsmanship and civil engineering workers. In addition, there are courses to train construction craftsmen/masons, plumbers and landscapers.

In the light engineering sector, there are 14 training programmes in Matale in which nine courses are NVQ accredited courses. Of these 14 courses, 36% are to train lathe machine operators, 29% are to train welders and 21% are to train aluminum fabricators. Courses are available to train machinists and light engineering workers too in the district.

In Matale district, there are 17 training programmes to provide training required for the automobile sector in which 14 courses are NVQ accredited. The majority of them train three wheeler mechanics (41%) and automobile mechanics (45%). The rest of training programmes trains automobile electricians, motor cycle mechanics and agricultural equipment mechanics. The registered training providers in Matale offer 4 courses to train persons for the jobs of household electrical equipment repair.

The registered training providers in Matale offer 26 training programmes related to ICT jobs. Of that 26 courses only eight courses (31%) are NVQ accredited. About 23% of total training programmes of the sector are used to train computer application assistants. Other main training programmes are computer graphic designers, ICT technicians, hardware technicians, web designers, computer studies and computer programming.

There are seven registered training courses with the TVEC in Matale to provide training for the workers in the hotel and tourism sector. Of these seven courses only three courses are NVQ accredited. The training provides for the following jobs: hotel management and operation, cook/cookery, room attendant, waiter/steward, outdoor caterer and tourism related housekeeping.

Registered training providers in Matale offer 11 courses in training related to textile and garment sector. Out of these courses five courses are NVQ accredited. Training institutes focus more on the provision of training for tailoring and embroidery work. There are courses on curtaining, pattern making, patch work, industrial sewing machine operation and smocking.

There are 19 training programmes to train workers requited to the cottage industry in Matale district. Out of these only sevencourses are NVQ accredited. Most of the training programmes train beauticians and hairstylists. Other training programmes provide training related to domestic housekeeping, basic competencies to work, agriculture/ farm management, baking, gem cutting and polishing and food processing.

There are 8 registered courses to offer personnel services in Matale district in which three courses are NVQ accredited. The courses mostly provide the training for jobs related to marketing, accounting and management, secretarial practice, front office, preschool teaching and English typewriting.

Table 4.5
Registered Courses and Training Programs (NVQ and non-NVQ) in Matale, 2013

S/N	Course/Training Programme	DTET	NAITA	VTA	NYSC	Other public	NGO/Private	Total	No. of NVQ accredited courses
1	Wood craftsman (furniture/ building)	2		2		3		7	
2	Construction craftsman			1				1	2
3	Mason	2		2				4	4
4	Electrician	1						1	
5	Draftsmanship	2		1		1		4	3
6	Plumber/Pipe fitter			1				1	
7	Landscaping	1						1	
8	Civil Engineering	2		1				3	3
	Sub Total	**10**		**8**		**4**		**22**	**12**
9	Aluminum fabricator			1			2	3	3
10	Welder			1	1		2	4	
11	Machinist					1		1	
12	Light engineering		1					1	1
13	Lathe machine operator	2		2	1			5	5

S/N	Course/Training Programme	DTET	NAITA	VTA	NYSC	Other public	NGO/Private	Total	No. of NVQ accredited courses
	Sub Total	2	1	4	2	1	4	14	9
14	Automobile mechanic	5		1				6	6
15	Motor cycle mechanic			1				1	
16	Three wheeler mechanic			1	6			7	5
17	Agriculture equipment mechanic				1			1	1
18	Automobile electrician						2	2	2
	Sub Total	**5**		**3**	**7**		**2**	**17**	**14**
19	Household equipment repair	3		1				4	4
	Sub Total	**3**		**1**				**4**	**4**
20	ICT technician	1	2	1	1			5	3
21	Computer graphic designer		1			1	3	5	1
22	Desk top publishing /printing			1		2		3	
23	Computer application assistant	2					4	6	3
24	Web designing						2	2	
25	Hardware technician			1		1	1	3	1
26	Computer studies						1	1	
27	Computer programming						1	1	
	Sub Total	**3**	**3**	**3**	**1**	**4**	**12**	**26**	**8**
28	Hotel management/operation						1	1	
20	Cook/cookery			1				1	1
30	Room Attendant			1				1	1
31	Waiter/steward			1				1	1
32	Outdoor Caterer			1				1	
33	Housekeeping (tourism)					1	1	2	
	Sub Total			**4**		**1**	**2**	**7**	**3**
34	Tailoring/sewing/dress making			1			2	3	2
35	Embroidery works						3	3	2
36	Curtaining						1	1	
37	Pattern maker			1				1	
38	Patch work						1	1	1
39	Industrial sewing machine operator			1				1	
40	Smocking						1	1	
	Sub Total			**3**			**8**	**11**	**5**
41	Beautician			1			3	4	1
42	Hair stylist			1			3	4	1
43	Baker			1				1	
44	Gem cutting and polishing	1						1	
45	Agriculture/farm management						3	3	
46	Food and beverages						1	1	
47	Basic competencies to work					2		2	2
48	Domestic housekeeping assistant					3		3	3
	Sub Total	**1**		**3**		**5**	**10**	**19**	**7**
49	Receptionist/ front office						1	1	1
50	Personal assistant /secretarial practice	1		1				2	2
51	English typewriting						1	1	
52	Preschool teacher training								
53	Marketing, accounting and management	2						2	

S/N	Course/Training Programme	DTET	NAITA	VTA	NYSC	Other public	NGO/Private	Total	No. of NVQ accredited courses
54	Awareness program in leadership and personality development				2			2	
	Sub Total	**3**		**1**	**2**		**2**	**8**	**3**
	Grand Total	**27**	**4**	**30**	**10**	**15**	**40**	**126**	**65**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.

Nuwara Eliya

As given in Table 4.6, there are 88 registered training courses in the NuwaraEliya district in total. Of that about 67% are NVQ accredited courses and most of them are offered by public training providers such as VTA, DTET, NYSE, NAITA and other public institutions. Of the total number of courses, Colleges of Technology and Technical colleges offer 10 courses (11%), NAITA offers 5 courses (6%), VTA offers 27 courses (31%), NYSC offers eight courses (9%), other public institutions offer 17 courses (19%) and private and NGO sector offer 21 courses (24%).

There are 17 training programmes related to construction sector labour training in NuwaraEliya district. It is about 19% of the total training programmes of the district. Of 17 courses on the construction sector training, 59% are NVQ accredited courses. In the sector, CoTs and technical colleges offer the highest number of courses (47%). VTA, other public institutions and private and NGO sector offer the rest of the training programmes. More than 75% of training programmes focus on training electricians and wood craftsmen. Courses are available for the training of draftsmen, plumbers and civil engineering workers.

In the light engineering sector, there are 10 training programmes in the district, in which seven courses are NVQ accredited. These courses mainly focus on training aluminum fabricators, machinists, welders, lathe machine operators and light engineering workers.

In Nuwara Eliyadistrict, there are 10 training programmes to provide training required for the automobile sector. Of the total courses, 90% are NVQ accredited. Majority of them trains automobile mechanics and motor cycle mechanics. There are 3 courses to train persons for the jobs in household equipment repairing.

The registered training providers in Nuwara Eliya offer 13 training programmes related to ICT sector. Of that 13 courses 10 courses (77%) are NVQ accredited. About 54% and 38% of total training programmes of the sector are used to train ICT technicians and computer application assistants. There is only one programme to train computer hardware technicians.

There are five registered and NVQ accredited training courses with the TVEC in NuwaraEliyato provide training for the workers in hotel and tourism sector. The training provides for the following jobs: cook/cookery, room attendant, waiter/steward and hotel housekeeping.

Registered training providers in NuwaraEliya offer nine courses in training related to textile and garment sector. Out of these courses, seven courses are NVQ accredited. Training institutes focus more on the provision of training for tailoring, embroidery work, garment quality controlling and pattern making.

Eight training programmes are there to train workers requited to the cottage industry in NuwaraEliya district. Of these eight courses, seven courses are NVQ accredited. Training programmes mainly train beauticians and hairstylists, nurse assistants and provide basic competencies to work

There are nine registered courses to offer personnel services in NuwaraEliyadistrict. None of them are NVQ accredited. The courses mostly provide the training for jobs related to forestry, marketing, accounting and management, secretarial practice, front office, preschool teaching and awareness programmes.

Table 4.6
Registered Courses and Training Programs in NuwaraEliya, 2013

S/N	Course/Training Programme	DTET	NAITA	VTA	NYSC	Other public	NGO/ Private	Total	NVQ accredited courses
1	Wood craftsman	1		1		3	1	6	2
2	Electrician	4		1			2	7	6
3	Draftsmanship	1					1	2	
4	Plumber/Pipe fitter	1						1	1
5	Civil Engineering	1						1	1
	Sub Total	**8**		**2**		**3**	**4**	**17**	**10**
6	Aluminum fabricator			1		2		3	2

S/N	Course/Training Programme	DTET	NAITA	VTA	NYSC	Other public	NGO/ Private	Total	NVQ accredited courses
7	Welder						2	2	2
8	Machinist			1			2	3	2
9	Lathe machine operator					1		1	1
10	Light engineering						1	1	
	Sub Total			**2**		**3**	**5**	**10**	**7**
11	Automobile mechanic			1		2	1	4	3
12	Automobile electrician					1		1	1
13	Motor cycle mechanic			2		1	1	4	4
14	Three wheeler mechanic			1				1	1
	Sub Total			**4**		**4**	**2**	**10**	**9**
15	Household equipment repair			1		1	1	3	2
	Sub Total			**1**		**1**	**1**	**3**	**2**
16	ICT technician		3	2	1		1	7	5
17	Computer application assistant			2	1	1	1	5	4
18	Hardware technician			1				1	1
	Sub Total		**3**	**5**	**2**	**1**	**2**	**13**	**10**
19	Cook/cookery			1				1	1
20	Waiter/steward			1				1	1
21	Hotel housekeeping						1	1	1
22	Room attendant			2				2	2
	Sub Total			**4**			**1**	**5**	**5**
23	Tailoring/sewing/dress making			1	1	1	2	5	3
24	Embroidery works						1	1	
25	Garment quality controller			1				1	2
26	Pattern maker			2				2	2
	Sub Total			**4**	**1**	**1**	**3**	**9**	**7**
27	Beautician		1	1	1			3	3
28	Hair stylist			1			1	2	2
29	Nursing/nurse assistant			1				1	
30	Basic competencies to work					2		2	2
	Sub Total		**1**	**3**	**1**	**2**	**1**	**8**	**7**
31	Preschool teacher training						1	1	
32	Receptionist/ front office						1	1	
33	Personal assistant /secretarial practice			1				1	
34	Forestry					2		2	
35	Marketing, accounting and management	1						1	
36	Awareness program in leadership and personality development				3			3	
	Sub Total	**1**		**1**	**3**	**2**	**2**	**9**	
	Grand Total	**10**	**5**	**27**	**8**	**17**	**21**	**88**	**59**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.

4.4 Number of Registered Students

In this section, the number of registered students in all training institutes of the Central province is estimated based on field surveys on training institutes and current trainees. The average number of students in different courses is determined based on the course capacity. It is learnt that all training programmes are not offered simultaneously due to various reasons. The average number of students in many training programmes which requires practical training and OJT is kept to 15 while other programmes such as ICT training and personal service training average class size increased to 20 -50.

The estimated total number of students registered for training courses in the Central province is 11,310 students. Of this total, 7,070 students registered in Kandy, 2530 students registered in Matale and 1650 students registered in NuwaraEliya (See Table 4.7 and Table 4.8). In training programmes related to the construction sector, the estimated number of registered students is 1380 in Kandy, 555 in Matale and 345 in NuwaraEliya. The construction sector training shared 20% of estimated total registered students. The estimated number of registered students in light engineering sector is 400 in Kandy, 185 in Matale and 145 in NuwaraEliya. The light engineering sector training shared 6% of estimated total registered students. The estimated number of registered students in automobile sector related training programmes is 435 in Kandy, 255 in Matale and 165 in Nuwara Eliya. The automobile sector training shared 8% of estimated total registered students. In training programmes related to the electronic sector, the estimated number of registered students is 240 in Kandy, 60 in Matale and 45 in NuwaraEliya. The electronic repair sector training shared only 3% of estimated total registered students. The estimated number of registered students in ICT sector is 1580 in Kandy, 520 in Matale and 260 in NuwaraEliya.The ICT sector training shared 21% of estimated total registered students.

In training programmes related to the hotel and tourism, the estimated number of registered students is 300 in Kandy, 140 in Mataleand 120 in Nuwara Eliya. The hotel and tourism sector training shared 5% of estimated total registered students. The training programmes related to textile and garment sector registered about 255 persons in Kandy, 165 persons in Matale and 120 persons in NuwaraEliya. The textiles and garment sector training shared 5% of estimated total registered students. The estimated number of registered students in cottage industry and personal services is 2420 in Kandy, 650 in Matale and 450 in Nuwara Eliya. The cottage industry sector training shared 31% of estimated total registered students of the Province.

Table 4.7
Registered Courses and Estimated Number of Students (in NVQ and non-NVQ), 2013

S/N	Course/Training programme	Average No. of students	Kandy		Matale		Nuwara Eliya	
			No. of courses	Estimated registered students	No. of courses	Estimated registered students	No. of courses	Estimated registered students
1	Wood craftsman (furniture and building)	30	22	660	7	210	6	180
2	Construction craftsman/Mason	30			5	150		
3	Construction equipment operator	15	7	105				
4	Electrician	15	13	195	4	60	7	105
5	Construction technology	15	2	30				
6	Draftsmanship	15	4	60	4	60	2	30
7	Plumber/Pipe fitter	15	2	30	1	15	1	15
8	Landscaping	15	2	30	1	15		
9	Construction site supervision	50	2	100				
10	Quantity surveying	50	1	50				
11	Auto CAD	15	4	60				
12	Civil Engineering	15	3	45	3	45	1	15
13	House wiring	15	1	15				
	Sub total			**1380**		**555**		**345**
14	Aluminum fabricator	15	2	30	3	45	3	45
15	Welder	15	12	180	4	60	2	30
16	Machinist	15	8	120	1	15	3	45
17	Lathe machine operator	10	1	10	5	50	1	10
18	Light engineering	15	4	60	1	15	1	15
	Sub total			**400**		**185**		**145**
19	Automobile mechanic	15	14	210	6	90	4	60
20	Automobile technology	15	1	15				
21	Motor cycle mechanic	15	3	45	1	15	4	60
22	Three wheeler mechanic	15	1	15	7	105	1	15
23	Automobile electrician	15	5	75	2	30	2	30
24	Electrical motor winder	15	4	60				
25	Automobile painter	15	1	15				
26	Agricultural machine mechanic	15			1	15		
	Sub total			**435**		**255**		**165**
27	Mobile phone repairer	15	1	15				
28	Refrigerator and AC mechanic	15	7	105				
29	Radio, TV and household equipment repair	15	8	120	4	60	3	45
	Sub total			**240**		**60**		**45**
30	ICT technician	20	16	320	5	100	7	140
31	Computer graphic designer	20	10	200	5	100	5	100

S / N	Course/Training programme	Average No. of students	Kandy		Matale		Nuwara Eliya	
			No. of courses	Estimated registered students	No. of courses	Estimated registered students	No. of courses	Estimated registered students
32	Desk top publishing /printing	20	4	80	3	60		
33	Computer application assistant	20	14	280	6	120		
34	Web designer	20	6	120	2	40		
35	Hardware technician	20	10	200	3	60	1	20
36	Network technician	20	5	100				
37	Computer studies	20	7	140	1	20		
38	Computer programming	20	2	40	1	20		
39	Multimedia operator	20	2	40				
40	Software technology	20	1	20				
41	Computerized accounting	20	2	40				
	Sub total			**1580**		**520**		**260**
42	Hotel management/operation	20	1	20	1	20		
43	Restaurant and bar service	20	1	20				
44	Cook /cookery	20	5	100	1	20	2	40
45	Room Attendant	20	1	20	1	20	2	40
46	Waiter/steward	20	1	20	1	20	1	20
47	Outdoor caterer	20			1	20		
48	Archaeology and tourism	20	2	40				
49	Housekeeping (tourism)	20	3	60	2	40	1	20
50	Tourism and travel flight service	20	1	20				
	Sub total			**300**		**140**		**120**
51	Tailoring/sewing/dress making	15	9	135	3	45	3	45
52	Batik	15	1	15				
53	Embroidery works	15	4	60	3	45	1	15
54	Curtaining	15	1	15	1	15		
55	Pattern maker	15			1	15	2	30
56	Patch work	15	1	15	1	15		
57	Bead weaving	15	1	15				
58	Industrial sewing machine operator	15			1	15		
59	smocking	15			1	15		
60	Garment quality controller	15					2	30
	Sub total			**255**		**165**		**120**
61	Beautician	20	17	340	3	60	4	80
62	Hair stylist	20	12	240	3	60	3	60
63	Baker	20	4	80	1	20		
64	Fruit and vegetable processing	20	1	20				
65	Food technology	20	1	20	1	20		
66	Agriculture/farm management	20	3	60	3	60		
67	Production technology	20	1	20				
68	Jewelry manufacturer	20	2	40				
69	Gem cutting and polishing	20			1	20		
70	Basic competencies to work	20	1	20	2	40	2	40

S / N	Course/Training programme	Average No. of students	Kandy		Matale		Nuwara Eliya	
			No. of courses	Estimated registered students	No. of courses	Estimated registered students	No. of courses	Estimated registered students
71	Domestic housekeeping assistant	50		50	3	150		
	Sub total			**890**		**430**		**180**
72	Receptionist/front office	50	1	30	1	50	1	50
73	Personal assistant /secretarial practice	30	5	150	2	60	1	30
74	Preschool teacher training	30	7	210			1	30
76	English typewriting	30			1	30		
77	Nursing /nurse assistant	20	4	120			2	40
78	Pharmacist	30	1	20				
79	Bookkeeping	20	1	20				
83	Marketing, accounting and management	20	12	600	2	40	1	20
84	Forestry	20	2	40			2	40
85	Counseling and Psychology	20	4	80				
86	Banking and finance	20	2	40				
87	Co-operative development	20	2	40				
88	Social development	20	1	20				
89	Project analysis and management	20	1	30				
90	Ship security awareness	30	2	40				
91	Awareness program in leadership and personality development	20	2	60	2	40	3	60
92	Personal safety and social responsibilities	30	1	30				
	Sub total			**1530**		**220**		**270**
	Total			**7070**		**2530**		**1650**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.

4.5 Estimated Number of Completion of Courses

Table 4.8 reports the estimated number of students who completed the training programmes. Though in some programmes the completion rate is high as 85%, we use 75% of completion rate to accommodate low completion rates in private sector training programmes. It is estimated that a total of 8,509 students completed NVQ or non-NVQ training programmes in the Central province. Those who completed the training programmes: 20% received training related to the construction sector, 7% received training related to light engineering sector, 8% received training related automobile sector, 4% received training related to electrical equipment repair sector, 21 received training related to ICT sector, 5% received training related to hotel and tourism sector, 5% received training related to textiles and garment sector and 32% received training related to cottage industry.

Table 4.8
Estimated Number of Registered Students and Completion of Training (in NVQ and non-NVQ),Central Province, 2013

S/N	Course/Training programme	Registered students	Training Completed*
1	Wood craftsman (furniture and building)	1050	788
2	Construction craftsman/Mason	150	113
3	Construction equipment operator	105	79
4	Electrician	360	270
5	Construction technology	30	23
6	Draftsmanship	150	113
7	Plumber/Pipe fitter	60	45
8	Landscaping	45	34
9	Construction site supervision	100	75
10	Quantity surveying	50	38
11	Auto CAD	60	45
12	Civil Engineering	105	79
13	House wiring	15	11
	Sub total	**2280**	**1710**
14	Aluminum fabricator	120	90
15	Welder	270	203
16	Machinist	180	135
17	Lathe machine operator	70	52
18	Light engineering	90	68
	Sub total	**765**	**574**
19	Automobile mechanic	360	270
20	Automobile technology	15	11
21	Motor cycle mechanic	120	90
22	Three wheeler mechanic	135	101
23	Automobile electrician	135	101
24	Electrical motor winder	60	45
25	Automobile painter	15	11
26	Agricultural machine mechanic	15	11
	Sub total	**855**	**641**
27	Mobile phone repairer	15	11
28	Refrigerator and AC mechanic	105	79
29	Radio, TV and household equipment repair	225	169
	Sub total	**405**	**304**
30	ICT technician	560	420
31	Computer graphic designer	400	300
32	Desk top publishing /printing	140	105
33	Computer application assistant	400	300
34	Web designer	160	120
35	Hardware technician	280	210
36	Network technician	100	75
37	Computer studies	160	120
38	Computer programming	60	45
39	Multimedia operator	40	30

S/N	Course/Training programme	Registered students	Training Completed*
40	Software technology	20	15
41	Computerized accounting	40	30
	Sub total	**2360**	**1770**
42	Hotel management/operation	40	30
43	Restaurant and bar service	20	15
44	Cook /cookery	160	120
45	Room Attendant	80	60
46	Waiter/steward	60	45
47	Outdoor caterer	20	15
48	Archaeology and tourism	40	30
49	Housekeeping (tourism)	120	90
50	Tourism and travel flight service	20	15
	Sub total	**560**	**420**
51	Tailoring/sewing/dress making	225	169
52	Batik	15	11
53	Embroidery works	120	90
54	Curtaining	30	23
55	Pattern maker	45	34
56	Patch work	30	23
57	Bead weaving	15	11
58	Industrial sewing machine operator	15	11
59	smocking	15	11
60	Garment quality controller	30	23
	Sub total	**540**	**405**
61	Beautician	480	360
62	Hair stylist	360	270
63	Baker	100	75
64	Fruit and vegetable processing	20	15
65	Food technology	40	30
66	Agriculture/farm management	120	90
67	Production technology	20	15
68	Jewelry manufacturer	40	30
69	Gem cutting and polishing	20	15
70	Basic competencies to work	100	75
71	Domestic housekeeping assistant	200	150
	Sub total	**1500**	**1125**
72	Receptionist/front office	130	98
73	Personal assistant /secretarial practice	240	180
74	Preschool teacher training	240	180
76	English typewriting	30	23
77	Nursing /nurse assistant	160	120
78	Pharmacist	20	15
79	Bookkeeping	20	15
83	Marketing, accounting and management	660	495
84	Forestry	140	105
85	Counseling and Psychology	80	60
86	Banking and finance	40	30
87	Co-operative development	40	30
88	Social development	20	15
89	Project analysis and management	30	23

S/N	Course/Training programme	Registered students	Training Completed*
90	Ship security awareness	40	30
91	Awareness program in leadership and personality development	160	120
92	Personal safety and social responsibilities	30	23
	Sub total	**2080**	**1560**
	Total	**11310**	**8509**

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.
Note: * Number of persons completed training was calculated using a completion rate of 75%.

4.6 Current Training Gap and Future Training Requirement

Table 4.9 gives the estimated Annual Average Demand for sector-wise jobs and the average annual supply training in the Central province. The annual average demand is from the estimates given in Chapter 4 under sector reports. The annual average demand includes both provincial demand and potential demand from abroad. The supply of training is computed in two ways: (i) Number of NVQ certificates issued in 2013, (ii) the number of completions as given in Table 5.8. The gap between the demand and the supply of NVQ accredited training is given by (A-B) column and the gap between the demand and expected number of training completion is given by (A-C) column of Table 4.9. The gap between the demand and the supply of NVQ training is important as the TVEC is focusing more on converting all VET courses to NVQ accredited courses in order to improve the quality of training.

4.6.1 Construction Sector

In the construction sector, there is a large shortfall of training provision compared to the demand in many job categories. The demand for wood craftsmen and carpenters is around 950 persons annually. However, only 50 NVQ wood craftsman certificates were issued in 2013. There is a huge gap between demand and NVQ training provision for wood craftsmen. If the expected completion is taken as the supply of training, there is still a training requirement for wood craftsmen. The training providers, mainly the training centers of DIDEP, provide the training for 788 persons annually. Still, about 160 wood craftsmen and carpenters to be trained by the government and non-government training institutes. The facilities available for this type of training should be enhanced in all three districts. Especially, NVQ training should be expanded to provide training for 900 wood craftsmen in a year.

The demand for construction craftsmen and masons amounts to 1,050 persons annually in the Province. However, only seven NVQ certificates were issued in 2013. There was a demand gap of 1,035 construction craftsmen in the province. If the expected completion is taken as the supply of training, training providers of the province are able train only little more than hundred persons with the required skills. Therefore, the TVET system in the province needs to extend facilities to provide NVQ accredited training for more than 1,000 construction craftsmen annually. However, the training providers often complain that the youth is not interested in these types of courses and it is very difficult to recruit students to follow the courses. The governing bodies and the training providers of the TVET system need to adopt policies and measures to direct youth to acquire these training. Awareness programmes among school children those who are about to leave school and parents would create an interest among people to acquire these skills and training.

There is a high demand for construction equipment operators, both heavy and light machine operators. The estimated demand for construction machine operators is 284 persons. The number of certificates issued on the training in 2013 was 60. The NVQ system failed to provide the training to suit with the market demand. If the expected completion is taken as the supply of training, training providers in the province train only 79 construction equipment operators. Another 205 persons are to be given the NVQ training to cater for the market demand.

There is a demand for additional 516 electricians in the Central province. This demand constitutes local and foreign demand. The NVQ system trains only 189 electricians annually in the province. The NVQ system of the province should be expanded to train another 327 electricians annually. If the expected completion is taken as the supply of training, all training providers in the province train only 281electricians. Another 235 electricians are to be trained to cater for the demand.

The additional demand for persons with training on construction technology is about 32 persons annually. In 2013, there was no NVQ certificates issued on the training. If the expected completion is taken as the supply of training, all training institutes in the province provide the training for only 23 persons. The gap between the demand and expected completions is 9 persons in a year. However, the NVQ system should be expanded to provide the training on construction technology for 32 persons annually.

There is a demand for additional 391 plumbers or pipe fitters in the province. The number of NVQ certificates issued in 2013 was 13. The expected number of training completion is 45 in a year. The training institutes of the province should build up capacity to train about 350-380 plumbers and pipe fitters annually in coming years.

There is an additional demand for 153 tile layers annually. There was no NVQ certificates issued on the training in 2013. Since there are no training programmes available, the training providers should introduce training programmes to train 153 tile layers annually.

The demand for building painters is about 204 workers annually. The training providers of the province provide no training programmes on the training. The training providers should introduce training programmes to train 153 construction painters annually.

The demand for heavy and light machine operators is about 280 additional operators. Number NVQ certificates were issued on the training in 2013. If the expected completion is taken as the supply of training, all training institutes in the province provide the training only for 79 machine operators. The training should be provided for at least another 200 machine operators annually.

Training programmes should be introduced to train 128 construction sector technical officers, 146 civil work supervisors/foremen and 79 mechanical fixers. Currently, the training institutes of the province do not have training programmes on these skill and training requirements.

Table 4.9
Estimated Training Demand and Supply Gap
(in NVQ and non-NVQ), Central Province

S/N	Course/Training programme	Annual Average Demand	Training Supplied		Training GAP	
			NVQ Certifi-cates issued in 2013	No. of completion if 75% of registered students complete the course	A-B	A-C
		(A)	(B)	(C)		
1	Wood craftsman (furniture and building)	949	50	788	899	161
2	Construction craftsman/Mason	1042	7	113	1035	929
3	Construction equipment operator	284	60	79	224	205
4	Electrician	624	189	281	435	343
5	Construction technology/ landscaping	32		23	32	9
6	Plumber/Pipe fitter	391	13	45	378	346
7	Quantity surveying			38		38
8	Tile Layer	153			153	153
9	Painters	204			204	204
10	Machine operators	284		79	284	205
11	Technical officers	128			128	128
12	Civil work supervisor/foreman	146			146	146
13	Mechanical fixer/supervisor	79			79	79
14	Aluminum fabricator	182	80	90	102	92
15	Welder	411	54	203	357	208
16	Machinist					
17	Lathe machine operator	238	52	187	186	51
18	Light engineering /iron and steel fabricators	514		147	514	367
19	Agricultural machine mechanic	61		11	61	50
20	Automobile mechanic/ Automobile technology	371	44	281	327	101
21	Motor cycle and three wheeler mechanic	218	61	191	157	27
22	Automobile electrician/electrical motor winder	149	17	101	132	48
23	Automobile painter/tinkers	152		12	152	140
24	Mobile phone repairer	41		11	41	30
25	Refrigerator and AC mechanic	220		79	220	141
26	Radio, TV and household equipment repair	96	44	169	52	75
27	ICT technician	516	74	420	442	96
28	Computer graphic designer	410	24	300	386	110
29	Desk top publishing /printing	138		105	138	33
30	Computer application assistant	564	305	320	259	264
31	Web designer	128		120	128	08
32	Hardware technician	153	55	210	98	-57
33	Network technician	106	16	75	90	31

S/N	Course/Training programme	Annual Average Demand	Training Supplied		Training GAP	
			NVQ Certifi-cates issued in 2013	No. of completion if 75% of registered students complete the course	A-B	A-C
		(A)	(B)	(C)		
34	Computer studies	167		120	167	47
35	Computer programming	95		45	95	50
36	Multimedia operator	73		30	73	43
37	Software technology	68		15	68	53
38	Computerized accounting	34		30	34	04
39	Hotel management/middle level	81		30	81	51
40	Restaurant and bar service-barmen	54		15	54	39
41	Cook /cookery	270		120		150
42	Chef	27				27
43	Chef de party	162				162
44	Kitchen Assistant	162				162
45	Room Attendant/Boy	270		60		190
46	Pool attendant	27				27
47	Waiter/steward	315		45		270
48	Stores worker	81				81
49	Life Guard	54				54
50	Gardner	54				54
51	Security staff	108				108
52	Night Auditor	27				27
53	Cashier	27				27
54	Laundry Staff	81				81
55	Tailoring/sewing/machine operators	1378		169		1207
56	Helpers	163				163
57	Ironers	20				20
58	Technicians	08				08
59	Batik	29		11		18
60	Embroidery works			90		90
61	Curtaining			23		23
62	Pattern maker	10	6	34	04	34
63	Cutters	02				02
64	Patch work			23		23
65	Garment quality controller/checker	43		23		20
66	Clerical Grades	12				12
67	Supervisors	27				27
68	Beautician	25	145	360		-345
69	Hair stylist	23		270	-97	-247
70	Baker	52	11	75	41	-23
71	Fruit and vegetable processing	97		15	97	82
72	Food technology	110	50	30	60	80
73	Agriculture/farm management	35		90	35	-55

S/N	Course/Training programme	Annual Average Demand	Training Supplied		Training GAP	
			NVQ Certifi-cates issued in 2013	No. of completion if 75% of registered students complete the course	A-B	A-C
		(A)	(B)	(C)		
74	Production technology	45	05	15	40	30
75	Jewelry manufacturer	35		30	35	5
76	Gem cutting and polishing	26		15	26	11
77	Basic competencies to work		457	75		
78	Domestic housekeeping assistant		435	150		
79	Front Office/Receptionist	135		98		37

Sources: TVEC database-NVQ accredited courses and registered training providers in Central Province.
* Number of persons completed training was calculated using a completion rate of 75%.

4.6.2 Light Engineering Sector

The average annual demand for aluminum fabricators in the Central province is about 182 persons. In 2013, eighty (80) NVQ certificates were issued on the training. According to expected number of completion, about 90 persons receive the training annually. Yet, more than 90 additional persons should be given the training on aluminum fabrication. The training providers of the province should expand their capacity to train 90-100 additional aluminum fabricators annually.

There is a huge demand for welders in the province. It is estimated that the province needs 411 additional welders to cater for local and foreign markets. The number of NVQ certificates issued on the training in 2013 was 54. Then, the number of NVQ trained welders is 357 less than the market demand. According to the expected number of completion, about 203 persons received the welding training annually. Still, another 208 persons should be given the welders' training. The training providers of the province should expand their capacity to train at least another 200 welders in the province in a year during the next five years.

Light engineering sector requires 238 machinists in a year on average. The NVQ system issued 52 certificates for lathe machine operators/machinist in 2013. The gap between demand the NVQ supply is 187 machinists in a year. According to the expected number of completion, about 187 persons should complete the training in a year. The gap between the demand and expected completion is 51 machinists in a year. Therefore, the TVET system should expand the training for machinist by another 50-150 persons in a year.

We consider light engineering training and training for iron and steel fabricators together in this analysis. Additional 514 workers are necessary in the field annually for the local and foreign markets. In 2013, no NVQ certificates were issued on this training. According to the expected number of completion, about 147 persons should complete the training on light engineering/iron and steel fabrication. The training institutes of the province should expand the capacity to train more than 360 iron and steel fabricators annually.

The Central province requires 61 additional agricultural machine mechanics in each year. However, the NVQ system has not issued any certificate on the training in 2013 and the training system of the province has the capacity to train only 11 agricultural machine and equipment mechanics. The training should be given to at least another 50 persons in the province annually. The lack or insufficiency of agricultural machine mechanics in the province was raised in focus group discussions too.

4.6.3 Automobile Repair and Services

The average annual demand for automobile mechanics is about 371 annually. The training institutes of the province issued 44 NVQ certificates for the training in 2013. The current NVQ training is far less than the demand for automobile mechanics. According to the expected number of completion, about 281 persons receive the training annually. Yet, more than 100 additional persons should be given the training on automobile mechanic/automobile technology.

The automobile sector of the central province requires 218 motor cycle and three wheeler mechanics annually. The number of NVQ certificates issued on the training in 2013 was 61. Then, the number of NVQ trained motor cycle mechanics is 76 less than the market demand. According to the expected number of completion, about 191 persons received the training annually. The training system may train around 30 more motor cycle and three wheeler mechanics in a year.

The estimated demand for automobile electricians/electric motor winders is about 150 persons. The NVQ system issued only 17 certificates on the training in 2013. The number of NVQ training certificates is less than the market demand by 132. As per the expected number of completion, about 101 persons should complete the training of automobile mechanic. The TVET system in the province should train another 50-132 automobile electricians annually during the next five years.

The estimated demand for automobile painters and tinkers is about 152 persons annually. The expected number of completion of training in the province was 12 persons. Thus, training institutions should build capacities to train more than 150 additional automobile painters and tinkers.

4.6.4 Household Electrical Equipment Repair Services

The average annual demand for phone and mobile phone repair workers is 41 annually. The TVET system did not issue any NVQ certificate on the training in 2013. According to expected number of completion, about 11 persons receive the training annually. Yet, more than 30 additional phone and mobile phone repair workers should be trained by the training institutes annually.

In order to cater for the local and foreign demand, the training instates of the Central province need to train about 220 refrigerator and AC mechanics in a year. The TVET system did not issue any NVQ certificate on the training in 2013. According to the expected number of completion, about 79 persons received the training annually. Therefore, the training institutes should build capacity to train more than 140 persons as refrigerator and AC mechanics in a year.

The estimated demand for radio, TV and household equipment repair workers is about 96. The number of NVQ certificates issued on the training in 2013 was 44. The gap between the demand

and NVQ supply is 52 persons. As per the expected number of completion, about 169 persons should complete the training. The gap between demand and the expected number of completion is 75 persons in a year. The training institutes in the province should train 50-75 additional radio, TV and household equipment repair workers in a year for the next five years

4.6.5 ICT and Printing Sector

The estimated average annual demand for ICT technicians is 516 persons in the Central province. The number of NVQ certificates issued on ICT technician training in 2013 was 74. The difference between estimated demand and NVQ certificates issued is 442. The expected number of completion of ICT technician training programme is 420 in a year. The difference between annual demand and annual completion of the course is 96. Therefore, the training providers in the province should expand NVQ training by training nearly 450 additional ICT technicians. According the survey data on the gap between demand and supply of ICT workforce, around 40% of the gap is recorded from Kandy, 35% is from NuwaraEliya and 25% is recorded from Matale. On average the same percentages of workforce gaps are identified in other employment types as well across the three districts in the province. Therefore the number of ICT workers need to be trained from each district can also be distributed with the same percentages.

The estimated average annual demand for computer graphic designers is 410 persons in the province. Only 24 NVQ certificates were issued on the training in 2013. The difference between estimated demand and NVQ certificates issued is 386. The expected number of completion of computer graphic design programme is 300 in a year. The difference between annual demand and annual completion of the course is 110. Therefore, on averagethe training providers in the province should expand annual NVQ training by providing the computer graphic design training for 386 additional persons.

The estimated average annual demand for desk top publishers is 138 persons in the Central Province. The training providers in the province have not issued any NVQ certificates on the training in 2013. The expected number of completion of desk top publisher course is 105 in a year. The difference between annual demand and annual completion of the course is 33. The training providers in the province should expand NVQ training by providing training for 138 additional persons in a year.

The estimated average annual demand for computer application assistants is 564 persons in the province. The NVQ system was able to issue 305 certificates on the training in 2013. The difference between estimated demand and NVQ certificates issued is still 259. The expected number of completion of computer application assistant course is 300 in a year. The difference between annual demand and annual completion of the course is 264. Therefore, the training providers in the province should expand NVQ training by providing the training for another 260 persons annually.

The average annual demand for web designers was estimated to be 128 persons in the province. The NVQ system was not able to issue any certificates on the training in 2013. The expected number of completion of web designer courses is 120 in a year. The difference between annual demand and annual completion of the course is 08. Therefore, the training providers in the province should expand NVQ training by providing the training to at least 120 persons in a year.

The estimated average annual demand for computer hardware technicians is 153 persons in the province. The NVQ system was able to issue only 55 certificates on the training in 2013. The difference between estimated demand and NVQ certificates issued is 98. The expected number of completion of computer hardware technician course is 210 in a year. However, since many courses on hardware training have not frequently offered this completion rate might be an over estimate. Therefore, the training providers in the province should expand NVQ training by providing the hardware technician training for another 98 persons annually.

The estimated average annual demand for person with training on computer studies is 167 persons in the province. The NVQ system was not able to issue any certificates on the training in 2013. The expected number of completion of computer studies course is 120 in a year. The difference between annual demand and annual completion of the course is 47. Therefore, the training providers in the province should expand NVQ training by providing the training for another 120 persons.

The estimated average annual demand for computer programmers is 95 persons in the province. The NVQ system was not able to issue any certificates on the training in 2013. The expected number of completion of computer programming course is 45 in a year. The difference between annual demand and annual completion of the course is 50. The training providers in the province should expand NVQ training system to provide the training 95 computer programmers in a year.

4.6.6 Textiles and Clothing Industry

Inclusive of the foreign demand, more than 1,200 sewing machine operators should be trained annually on average by the training providers in the Central province. Currently, the training institutes of the province may train about 169 sewing machine operators annually. The textiles and clothing sector of the province requires 163 helpers, 20 ironers, 08 technicians, 18 batik related workers, 10 pattern makers and 20 quality checkers additionally each year. In addition, embroidery workers, curtaining workers, patch workers and cutters should be trained as given in the table. Since the NVQ system does not training other than pattern makers required for the textiles and clothing industry, there are large potentials to increase the training courses related to the industry.

4.6.7 Hotels and Tourism Sector

The estimated average annual demand for hotel management middle level workers is 81 persons in the province. The NVQ system does not issue any certificates on the training in 2013. The expected number of completion of hotel management course is 30 in a year. The difference between annual demand and annual completion of the course is 51. The training providers in the province should expand NVQ training system to provide the training 81 hotel management workers in a year.

The hotel and tourism sector of the province requires 54 additional restaurant and bar servicemen on average in a year. Currently, the NVQ system in the province does not train bar servicemen. The expected number of completion of bar servicemen course is 15 in a year. The training providers in the province should expand NVQ training system to provide the training for 54 restaurant and bar servicemen in a year.

The training system in the province should expand the training facilities to train another 150 cookers, 189 chefs, 162 kitchen assistants, 190 room attendants, 27 pool attendants, 270 waiters and stewards, 81 store workers, 54 life guards, 54 gardeners, 108 security staff, 27 night auditors, 27 cashiers and 81 laundry staff. Though training programmes are available for cookery, room attendant and waiter/steward, present training is quite inadequate to cater for the market demand. Currently, the TVET system of the province does not have training programmes on training chefs, kitchen assistants, pool attendants, stores workers, life guards, gardener, security staff, night auditor, cashier and laundry staff.

4.6.8 Cottage Industry

Currently, the training institutes train a large number of workers related to cottage industry. The training mainly covers beautician, hair stylist, basic competencies to work, domestic housekeeping assistants, bakers, workers related to agriculture, receptionists, etc. However, the following additional number of workers should be given the NVQ training in the areas of baking/baker (41), fruit and vegetable processing (97), food processing and food technology (60), agriculture/farm management (35), production technology (15), jewelry manufacturing (35), front office and receptionists (138), and gem cutters and polishers (26) in a year.

4.7 Responses from Training Institutes

A survey of training institutes in the Central Province was conducted to obtain firsthand information from the institutes / respondents. About 80% of registered training institutes located in the Central Province were covered in this survey. A semi-structured questionnaire was mainly used to collect quantitative data from respective institutes. In addition to the questionnaire survey, interviews with office bearers/ principals /heads of the training institutes were conducted to collect qualitative data. Interviews were conducted in the office premises of respective institutions during early part of 2014. In this field survey, in addition to basic details of the institute like number of courses, duration of programmes, history and other details, the information related to students' demographic factors, students' performance were collected. Progress of the institutes and programmes, prevailing unresolved problems and future planning also were the main areas concerned in collecting information.

The survey results revealed that 90% of institutes surveyed have existed more than 10 years in training provision. Many of training institutes are having certificate courses than diploma courses. The number of certificate courses accounts for 75% of all courses. No institute offers degree programme in the Central Province. It was further observed that most of government or government affiliated institutes are still using basic methods to promote their courses. For example, advertising through government organization, posters, banners, handbills and cutouts are popular among them. Majority of students who joined with training institutions are from the Central Province itself. There is a gradual increase in the student intake and number of certificates issued. It was revealed that some institutions face difficulties in offering courses continuously due to insufficient number of admissions for their training programmes. About 90% of institutes who responded to the survey are in the opinion that they do not have enough resources to continue their training programmes efficiently and effectively.

The following are major issues faced by the training institutes in the Central Province:

1. Lack of trained teaching staff and academic support staff;
2. Lack of training specific physical resources like machines, equipments, etc.;
3. Lack of infrastructure facilities such as residential and sanitary facilities for students;
4. Lack of demand for some courses such as masonry, carpentry, cookery, etc., due to unfavourable social attitudes;
5. Lack of better coordination between training institutes and industry sectors;
6. Coordination failure between and among training institutes;
7. Inadequate coordination from top to bottom on major structural and policy changes.

When the internal management and future prospects of training institutes are concerned, few large scale institutes have proper planning and better internal management. They have future plans, actions plans as well as strategic plans for their institutes whereas some institutes do not have a future plan at all. The survey data revealed that 62% of all institutes have proper future planning whereas 8% of them do not have any future plans. The rest follows plans given by parent institutes which located in Colombo. Some institutes have not identified their strength and weaknesses as well as opportunities and threats. These types of organizations, perhaps, do not demonstrate clear progress in the training provision. However, 83% of training institutes surveyed agreed that they can expand their courses offered as well as the number of students.

Based on the field visits experience, the research team reckons that the progress and the efficiency of training institutes depend more on the leadership of the institute. Motivated and enthusiastic leaders of training institutes run their training programmes without serious difficulties. Asking for the anonymity, an administrative head of one leading training institute in the Province expressed his/her disappointment for the way in which policies related to structural changes in the TVET system are brought in without a proper dialogue among the stakeholders of the system. Sudden and uncoordinated overhauls of the system have disturbed the functioning of the system at the bottom seriously and affected students badly. Therefore, system changes require a series of discussions and evaluation of all impacts before their implementation.

4.8 Responses from NVQ Trained Persons

4.8.1 Identified Main Characteristics of Trained Persons

This study conducted a survey among 132 persons who received vocational education in recent years. The sample was selected from among the persons who received NVQ certificates in 2011, 2012, and 2013. These 132 persons represent all three districts. The gender distribution of vocational education receivers is marginally biased towards males. About 53% of sample is males.

Table 4.10
Gender, Civil Status and Education of Trained Persons

Characteristics		%	No.
Gender	Male	53	
	Female	47	
	Total	100	
		Number of respondents	132
Civil Status	Married	11	
	Unmarried	89	
	Total	100	
		Number of respondents	132

Characteristics		%	No.
Educational Qualifications	G.C.E. (O/L)-Not Pass	17	
	G.C.E.(O/L)- Pass	12	
	G.C.E.(A/L)-Not Pass	15	
	G.C.E. (A/L)- Pass	56	
	Total	100	
		Number of respondents	132
G.C.E.(A/L)- Stream of Study	Arts	44	
	Commerce	22	
	Science	18	
	Agriculture	11	
	Mathematics	5	
	Total	100	
Number of respondents			94

Source: Field Survey, Oct.-December, 2013

Obviously about 90% of people who entered to vocational education are unmarried youth. The majority of trained persons has passed G.C.E. (A/L) examination. It means that chances for GCE (A/L) qualified students in admitting to vocational training are high. In the sample, there were 94 trained with GCE (A/L) education. Of them 44% are from Arts stream, 22% are from commerce, 18% are from science and 11% are from agriculture. Interestingly, 56% of persons who received vocational education are not from Arts stream of GCE (A/L) examination.

The composition of the sample on the type of training is given in Table 4.11. The sample constitutes more than 21 different types of training.

Table 4.11
Type of Training Received by Trained Persons

S/N	Type of Training	%
1	Computer Application Assistant	7.9
2	Electrician	6.6
3	Beautician	5.3
4	Automobile Mechanic	5.3
5	Hairstylist	3.9
6	Welder	5.3
7	Construction Craftsman- Mason	1.3
8	Wood Craftsman-Furniture	2.6
9	Motor Cycle Mechanic	3.9
10	A/C Mechanic	3.9

S/N	Type of Training	%
11	Computer Hardware Technician	5.3
12	Baker	2.6
13	Radio, TV and household equipment repairer	2.6
14	Aluminum fabricator	5.3
15	Computer graphic designer	6.6
16	Wood Craftsman-Building	1.3
17	Tailor	1.3
18	Electrical Motor Winder	3.9
19	ICT Technician	2.6
20	Mechanist	3.9
21	Food processor	1.3
22	Other	3.9
	Sum	100.0
	Number of respondents	132

Source: Field Survey, Oct.-December, 2013

Table 4.12 gives the nature of the training they received. About 87% of the sample received certificate course of training. More than 76% of them received the training in government training institute. About 71% followed courses with a duration of less than a year and 87% followed the programme in full time basis.

Table 4.12
Training and Institutional Information

Training information		%
Training	Certificate	86.8
	Diploma	13.2
Institution	Government	76.3
	Private	19.7
	NGO	3.9
Duration	Less than a year	71.1
	More than a year	28.9
Nature	Full time	86.8
	Part time	13.2
Number of respondents		132

Source: Field Survey, Oct.-December, 2013

4.8.2 Employment/Unemployment of Trained Persons

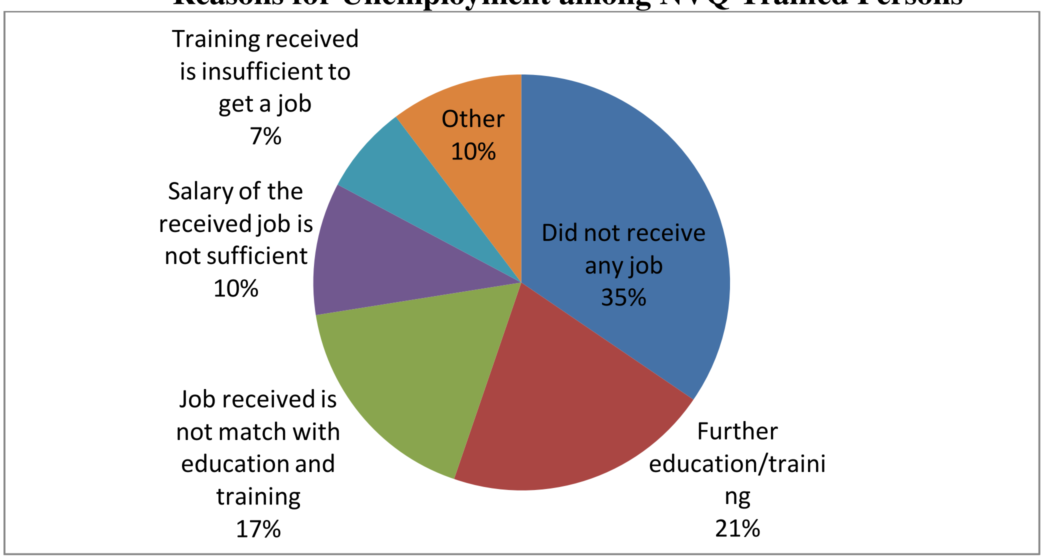
From 124 persons who responded to the question on their employment status, about 53% of NVQ trained are employed and 45% are unemployed (see Table 4.13). The unemployment among the trained seems to be very high.

Table 4.13
Employment Status of NVQ Trained Persons

Employment status	%
Employed	53.2
Unemployed	45.2
Not stated	1.6
Total	100.0
Number of respondents	124

Source: Sample Survey, Oct.-December, 2013

Figure 4.1
Reasons for Unemployment among NVQ Trained Persons



Source: Field Survey Oct.-December, 2013, # of respondents is 56.

Figure 4.1 and Table 4.14 give reasons for the unemployment among NVQ trained youth. About 35% of the unemployed persons are unemployed as they did not receive any job. This is really worrying as many respondents repeatedly inquired from the project team whether they receive a job immediately after this survey. It seems that trained persons expect to receive public sector occupations.

About 21% of respondents stated that they are unemployed because of further education and training. 17% are unemployed as their education and training does not match with the received job. 10% remained as unemployed as the salary of the job received is not sufficient. About 7% of the trained persons stay unemployed because the training received is insufficient to get a job. Together about 24% of unemployed trained persons identified mismatch of training with jobs and insufficient training as the most important reason for their unemployment. This is a relatively large share of unemployment among the trained. Further, about 30% of respondents identified it as secondary reason for their unemployment. Thus, training providers should carefully think about the training programmes and training provision as a sizable number of persons state that they are unemployed due to mismatch or insufficiency in training.

Table 4.14
Reasons for Unemployment among NVQ Trained Persons

S/N	Reason	1st Choice	2nd Choice	3rd Choice
1	Did not receive any job	34.5	0.0	0.0
2	Job received is not match with education and training	17.2	20.0	33.3
3	Working conditions of the received job is not attractive	0.0	40.0	0.0
4	Salary of the received job is not sufficient	10.3	0.0	33.3
5	The Job received is not suitable with family status	0.0	10.0	0.0
6	Training received is insufficient to get a job	6.9	20.0	33.3
7	Further education/training	20.7	10.0	0.0
8	Other	10.3	0.0	0.0
	Total	100.0	100.0	100.0
	Number of Respondents	56	20	12

Source: Sample Survey, Oct.-December, 2013

Table 4.15
Benefits Received from Vocational Education and Training

S/N	Benefits from training	1st Choice	2nd Choice	3rd Choice
1	Received a job	32.8	20.0	0.0
2	Salary of the job increased after the training	5.2	0.0	0.0
3	Increased gains from the self-employment	0.0	3.3	0.0
4	Confirmation/promotion of the job	1.7	3.3	5.6
5	Able to switch to another job	1.7	3.3	5.6

S/N	Benefits from training	1st Choice	2nd Choice	3rd Choice
5	Additional income generation	0.0	0.0	22.2
7	Able to train others	3.4	3.3	11.1
8	Opportunities created for foreign jobs	0.0	6.7	5.6
9	Helped to acquire further training	24.1	23.3	16.7
10	Social recognition as a skilled person	19.0	36.7	33.3
11	Training does not provide any benefit	12.1	0.0	0.0
	Total	100.0	100.0	100.0
	Number of Respondents	105	51	32

Source: Field Survey, Oct.-December, 2013

4.8.3 Benefits from Training

Table 4.15 gives the benefits received from the NVQ training. The number of respondents to this question was 105 persons. About 33% of respondents accepted that their main benefit from the training is getting a job. About 24% says that NVQ training helped them to acquire further training and about 19% state that their social recognition improved or enhanced due to the training. Five per cent says that their salary increased after the training. About 3% says that their training helped to train other persons.Interestingly, about 12% of respondent accepted that they did not receive any benefit from vocational education and training.

4.8.4. Opinion on Training and Facilities at Training Institutes

Table 4.16 reports opinions of NVQ trained individuals on facilities at training institutes and training programmes. The number of respondents to different questions varies from 96 to 108. About 57% of respondents stated that the institute they received the training has sufficient building facilities for training. Only 6% say that the building facilities are insufficient. 38% of respondents do not agree or disagree with the statement.

On the other hand, 66% of 100 respondents believe that the training institutes do not have sufficient residential facilities. 12% of the respondents are neutral while 22% believe that training institutes have sufficient residential facilities. Thus, lack of residential facilities is a major issue with regard to physical resources of the TVET system in the province.

Of 104 respondents, 61% stated that training institutes have sufficient machinery and equipment for training while 24% stated that the training institutes do not have sufficient machinery and equipment for training. About 66% of 106 respondents believed that training institutes have sufficient number of qualified teachers and instructors. Only 10% of respondents stated that teachers and instructors are insufficient.

Of 96 respondents, about 59% of informed that the training institutes direct trainees to relevant practical training and only 13% did not agree with the statement. About 44% of 100 respondents believed that the training institutes conduct programmes to introduce trainees to industry sector and 24% stated that training institutes do not conduct programmes to introduce students to practical training. In this case, 32% of respondents do not agree or disagree with the statement.

About 79% of 108 respondents thought that the training institute is located in a convenient place for students. Only 9% of respondents believed that the location of the training institutes is inconvenient for students. Among the NVQ trained who responded to the question whether training institutes conduct suitable training programmes for the area, 69% of respondents said yes. Only 10% of respondents believed that the training institutes do not conduct suitable training programmes for the area.

Table 4.16
Opinions of Trained Persons on Training and Facilities

S/N	Statement: The training institute	Strongly do not agree	Do not agree	Neutral	Agree to certain extent	Strongly agree	Total	No. of respondents
1	has sufficient building facilities for training	0	6	38	23	34	100	106
2	has sufficient residential facilities for students	50	16	12	6	16	100	100
3	has sufficient machinery/ equipment for training	12	12	15	38	23	100	104
4	has sufficient number of qualified teachers and instructors	8	2	25	26	40	100	106
5	directs students to relevant practical training	13	0	29	15	44	100	96

S/N	Statement: The training institute	Strongly do not agree	Do not agree	Neutral	Agree to certain extent	Strongly agree	Total	No. of respondents
6	conducts programs to introduce students to industry	8	16	32	12	32	100	100
7	is located at a convenient place for students	0	9	11	31	48	100	108
8	conducts more suitable training programs for the area	2	8	21	19	50	100	104

Source: Field Survey, Oct.-December, 2013

The above analysis can be summarized as follows:

1. Human and physical resources are not serious issues in conducting current training programmes;
2. Residential facilities at training institutes are insufficient;
3. Though training institutes direct trainees to practical training, there might be inadequacy of practical training as students' response is lower;
4. The efforts taken by training institutes to introduce trainees to industry sector may be insufficient;
5. The location of training institutes is not considered as a barrier for training; and
6. Training programmes conducted by institutes are suitable for the area.

4.8.5. Opinion on the Expansion of Training Programmes

Table 4.17 reports suggestion made by the NVQ trained to enhance the vocational education and training in the Central province. A total of 116 NVQ trained persons responded to this question. About 33% of respondents believed that educating school leavers on vocational education and training is more important in expanding the training. Another 31% believed that the introduction of new courses is necessary. About 16% of 116 respondents believe that training can be expanded by accommodating more students to existing training programmes. Establishment of new training institutes at district level gets the support from 12% of respondents. About 9% of respondents think that educating parents is necessary to expand the vocational education and training.

The number of respondents indicated a second and third choice in this question was 78. Among them, 26% believes that establishing new training institutes as the second important activity to enhance vocational education and training in the province. 42% of respondent divided equally in supporting educating school leavers and parents on vocational training to expand the training. 15% and 13% of respondents suggest recruiting more students to existing training programmes and introducing new training programmes as solutions to expand vocational education in the province.

Table 4.17
Suggestions to Expand Vocational Education and Training

S/N	Suggestion	Choice %		
		1st	2nd	3rd
1	Recruit more students to existing training programs	16	15	10
2	Establish new training institutes in district level	12	26	15
3	Introduce new training programs/courses	31	13	31
4	Educate school leavers on vocational education	33	21	15
5	Educate parents on vocational education	9	21	10
6	Other	0	5	18
	Total	100	100	100
	Number of respondents	116	78	78

Source: Field Survey, 2013

4.9 Responses from Current NVQ Trainees

This section analyses the responses from current trainees, especially on characteristics of trainees, attitudes towards the course and training institutes, issues related to the training and suggestion to improve training in the province. The sample consists of 130 trainees in various training institutes in the three districts.

4.9.1 Identified Main Characteristics of Trainees

The gender distribution of the trainees is almost equal but their educational back ground is quite different. The majority of students have the education level up to GCE (A/L.). Among the female students GCE (A/L) passed percentage is about 85%. But 56% of male students have the education qualification below GCE (A/L).

Table 4.18
Level of Education, Gender of Current Trainees

Level of education	Male	%	female	%
Up to G.C.E O/L	26	40.6	2	3.0
G.C.E O/L Pass	10	15.6	0	0.0
Up to G.C.E A/L	16	25.0	8	12.1
G.C.E A/L Pass	12	18.7	56	84.8
Total	64	100	66	100

Source: Field Survey, Oct.-December, 2013

4.9.2 Courses Offered

The 130 trainees in the sample follow 24 different courses. Among them, there is high demand for courses such as computer operator (13%), beautician and hairstylist (12%), draftsman (9%), electrician (8%), welders (8%), lathe machine Operator (6%), motor mechanic (5%), English typewriting (5%) and construction technology/planning (5%). The female students mainly follow courses such as computer operator, beautician and hairstylist, computer draftsman, English typewriting and construction planning courses. On the other hand, male students mainly follow courses such as electrical mechanic, welder and lathe machine operator courses. Table 5.19 gives the distribution of the sample trainees in different courses by gender.

Table 4.19
Courses Followed by Current Trainees

S/N	Course	Male	Female	Total	%
1	Computer Operator	2	15	17	13.0
2	Electrician	9	1	10	7.6
3	Beautician		12	12	9.2
4	Motor Mechanic	6	-	6	4.6
5	Hair Stylist		4	4	3.0
6	Welder	8	2	10	7.6
7	Mason	2	-	2	1.5
8	Carpenter	2	-	2	1.5
9	AC and Refrigerator repairing	3	-	3	2.3
10	Computer Hardware	2	2	4	3.0
11	Lathe machine operator	10	-	10	7.6
12	Baker	2	-	2	1.5
13	Furniture repairing	2	-	2	1.5
14	Aluminum worker	3	-	3	2.3
15	Computer Draftsman	2	10	12	9.2
16	Tailoring	1	-	1	0.7

S/N	Course	Male	Female	Total	%
17	Electrical motor winding	3	-	3	2.3
18	Computer Graphic design	2	2	4	3.0
19	Construction Planning	2	4	6	4.6
20	ICT Technician	1	4	5	3.8
21	Construction Field Supervisor	1	2	3	2.3
22	English Typewriting	-	6	6	4.6
23	Agriculture	-	2	2	1.5
24	Computer Studies	1	-	1	0.7
	Total	64	66	130	100

Source: Field Survey, Oct.-December, 2013

4.9.3 Course Duration

According to sample data, 61% of students follow 6 to 12 month courses and only 21.5% follow more than one year courses.

Table 4.20
Duration of Courses

Time period	No. of Students	%
3-6 month	22	17.0
6-12 month	80	61.5
More than one year	28	21.5
Total	130	100

Source: Field Survey, Oct.-December, 2013

4.9.4. Issues Related to Training

The survey identifies six main issues faced by student during their training period. These issues are as follows: lack of accommodation, lack of financial support, lack of transport facilities, inadequate class room and equipments, inadequate trained teachers and difficulties in obtaining leave. According to prioritized answers, 50% of students have mentioned the financial difficulty as the first priority, secondly lack of accommodation (20.9%) and followed by lack of transport facilities (11.2%) and lack of class rooms and equipments (11.2%). Only 6.4% have given their first priority for lack of trained teachers.

Table 4.21
Issues Faced by Students

Issue/Difficulty	1st priority	%	2nd priority	%	3rd priority	%
Accommodation	26	20.9	18	16.6	12	23.5
Financial	62	50.0	28	25.9	6	11.7
Transport	14	11.2	24	22.2	18	35.2
Class rooms & equipments	14	11.2	16	14.8	3	5.8
Trained teachers	8	6.4	8	7.4	10	19.6
Leave	-	-	-	-	2	3.9
Other	-	-	14	12.9	-	
No. of respondents	124		108		51	

Source: Field Survey, Oct.-December, 2013

4.9.5 Students' Attitudes towards the Course and Institution

As given in Table 4.22, the majority of trainees satisfy with existing building facilities (60%), teachers for the training (69.5%), subject/curriculum changes (55.7%), access to the institution (68.2%), attractiveness of institution (82.6%), and suitability of offered courses to the area (83.6%). Nevertheless, the majority of trainees do not satisfy with provided accommodation facilities (69.8%). Also a considerable number of trainees does not satisfy with provided practical training (31.1%) and the implementation of programmes to introduce students to the industry sector (36.8%).

Table 4.22
Students' Attitudes Towards Course and Institution

Attitudes	Disagree	%	Moderate	%	Agree	%	No of respondents
Institution has enough building facilities for the training	26	23.6	20	18.1	66	60.0	110
Institution has enough accommodation facilities	74	69.8	4	3.7	28	26.4	106
Institution has enough equipments/machines for the training	13	12.3	50	47.7	42	40.0	105
Institution has enough trained and qualified teachers	8	7.6	24	22.8	73	69.5	105
Institution has introduced new curriculum	12	11.5	34	32.6	58	55.7	104
Institution directs students for practical training	33	31.1	22	20.7	53	50.0	106
Institution undertake arrangements to introduce students to industry sector	38	36.8	19	18.4	46	44.6	103
Students can easily access to the institution	4	3.7	30	28.0	73	68.2	107
Appearance of the institution is attractive	2	1.9	18	17.3	86	82.6	104
Institution offers suitable courses to the area	0	-	17	16.3	87	83.6	104

Source: Field Survey, Oct.-December, 2013

4.9.6 Course Achievements

The survey investigated the relevance of courses by observing students achievements and their social benefits. According to trainees' views, the knowledge and training received from their vocational training (76.2%) is satisfactory. Trainees believe that the training enhances the quality of life (91%), self esteem (82%), and social status (87%). Moreover, trainees believe that they can achieve their target (80%) through the vocational training.

Table 4.23
Students' Responses on Course Achievements / Satisfaction

Achievement	Disagree	%	Moderate	%	Agree	%	No of respondents
Provided knowledge and training is sufficient	12	10.1	16	13.5	90	76.2	118
Vocational training improves the quality of life	2	1.7	8	7.0	103	91.1	113
Vocational training enhances self esteem	8	7.0	12	10.6	93	82.3	113
Vocational training raises social status	4	3.4	10	8.6	102	87.3	116
Vocational training helps achieving targets	8	6.7	16	13.5	94	79.6	118
Expected to send children or family members to VET	12	10.3	10	8.6	94	81.0	116

Source: Field Survey, Oct.-December, 2013

Table 4.24
Suggestions to Expand VET Programmes in the Province

Suggestions	1st Priority		2nd Priority		3rd Priority	
	No.	%	No.	%	No.	%
Increase the intake for existing institutes	24	20.7	6	6.3	4	4.8
Establishment of new institutes at district level	20	17.2	10	10.4	3	3.6
Provide accommodation facilities for students	2	1.7	12	12.5	12	14.3
Provide transport facilities for students	0	0.0	14	14.6	6	7.1
Initiate bursary/scholarships schemes for students	18	15.5	9	9.4	16	19.0
Introduce new vocational training programmes	16	13.8	8	8.3	16	19.0
Conduct awareness programmes among school leavers/students	12	10.3	16	16.7	9	10.7
Conduct awareness programmes among parents	16	13.8	16	16.7	9	10.7
Initiate short-term workshops/camps at rural level to aware general public on VET programmes	8	6.9	5	5.2	9	10.7
No of respondents	116	100.0	96	100.0	84	100.0

Source: Field Survey, Oct.-December, 2013

Table 4.24 illustrates the trainees' suggestions towards expanding vocational trainings in the province. According to trainees' priority, increase the intake for existing institutes (21%), establishment of new institutes at the district level (17%), establishment of bursary/scholarships schemes for students (16%), introduce new vocational training programmes (14%), conduct awareness programmes among parents on the importance of VET(14%), conduct awareness programmes among school leavers/students on the importance of VET (10%) and conduct short-term workshops or awareness camps in rural level to aware the general public on the VET programmes (7%).

4.10 Issues Related to Training and Training Institutes

Field surveys among industries, training institutes, NVQ certificate holders and current trainees and focus group discussions and discussions at planning workshops helped identifying the following issues and problems related to TVET system in the Central province:

1. The lack of confidence among the entrepreneurs/businessmen on the level of skills and attitudes of VET certificate holders. The industrial sector owners and managers believe that VET training certificate holders expect a higher salary and quit the job once they acquire experience and practical training. The industrial sector therefore prefers to hire unskilled workers and train them with a "learning by doing" process. This thinking and practice of the industrial sector is really negative for the TVET system and must be changed with awareness programmes among industrialists and trainees. The attitudes of trainees should be improved to work in a competitive environment while respecting for the aspirations of the industrialists and businessmen.

2. Training institutes faced severe issues with regard to absorbing adequate number of students for some training programmesuch as carpentry, masonry, machinists, motor mechanics, welding, iron and steel fabrication, machine and heavy equipment operators, etc. Reasons for the low enrollment for these training are: negative social attitudes and monetary attractiveness of 'helper-cum-trainee' positions in the informal sector. The training institutes often put the blame on inadequate facilities for ineffective and inefficient provision of training. The following are identified as major issues faced by the training providers in the province: lack of trained teachers or issue of retaining trained teachers in the field due to non-attractive payment schemes, lack of physical resources to

conduct programmes, lack residential facilities for students, lack of financial support for students in terms of bursaries/scholarships/loan schemes and the presence of non-accredited low quality training programmes offered mostly by the private sector. Further, training institutes disapprove sudden and uncoordinated changes in the policies related TVET system.

3. The issues revealed in sample surveys among NVQ certificate holders and current trainees are also helpful in policy interventions in improving the VET in the province. Non-availability of jobs and mismatch of training with available jobs and insufficient training are identified as main reasons for high unemployment among NVQ certificate holders in the province. Further, it is revealed that VET was not able to generate any benefits for a considerable number of NVQ certificate holders. These reasons compel the TVET system to revisit their training programmes and find out causes of the issue. This might be due to lack of coordination and understanding among industrial sector, training institutes and trainees as revealed in Issue 1 above. Both NVQ certificate holders and current trainees reckoned insufficient residential facilities at training institutes, inadequate/insufficient practical training and inadequacy of efforts taken by training institutes to introduce trainees to industry sector as major issues related to training.

4.11 Summary

This chapter discussed and analyzed information on the profile of training institutions and issues faced by them, course mix and course availability by type of training, the estimated number of registered students in vocational education programmes, the expected number of completion of training, the gap between demand for and supply of skilled workers and responses from NVQ trained persons and current trainees on their employability, benefits from training, quality of training, issues related to training and suggestions to improve training provision in the Central province. The information built in this chapter is used to frame the VET Plan for the Central province which is given in Chapter 5.

CHAPTER FIVE
CENTRAL PROVINCE VOCATIONAL EDUCATION AND TRAINING PLAN

5.0 Overview

This chapter provides the proposed training plan for the vocational education and training in Central province during the 2015-2019 five-year period. The training plan is prepared based on the gap between demand for and the supply of training and outcomes of the sample surveys on training institutes, trained persons, current trainees and expert and focus group discussions. The training requirements under different occupations and identified training providers are given. Further, the availability of courses and training institutes to undertake the proposed training is given and highlighted in this chapter. Further, short-term and medium term interventions and respective bodies are identified in the development of TVET in the Central province. Section 5.4 of this chapter provides the vocational education and training plan of the Central Province.

5.1 Training Requirement

This section identifies the training requirements in the province during the next years. The training requirements are calculated based the gap of training demand revealed in the sector reports and training supply revealed by current training profile of the province. Table 5.1 provides current employment, training requirement for the period, related training programmes, responsible agency for training and availability or non-availability of NVQ training under occupational division. The information is necessary in provision of the training and allocation of training provision among different government and private sector agencies. Further, the TVEC can use this information to identify areas where NVQ training programmes and NVQ standards be applicable to improve the training provision. As given in the Table 5.1, there are large potentials for the improvement of NVQ training in the province in terms of introducing new courses, expanding existing courses, accrediting existing courses, expanding student intake, establishing new training institutes and training centers and setting up recruiting centers in remote areas in the province.

Table 5.1

Present Training and Training Requirement of Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Labour Requirement, Local & Foreign Demand (Foreign demand is given in brackets*)						Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
			2014	2015	2016	2017	2018	2019			
1	Wood craftsman/ Carpenter (furniture and building)	788 (50)	684 [215]	752 [226]	828 [237]	910 [249]	1001 [261]	1102 [274]	Wood Craftsman/ Carpenter (furniture/ building)	DTET, VTA, DIDEP, NGO	NVQ 40% of total 35 courses
2	Construction craftsman/Mason	113 (07)	693 [236]	762 [248]	839 [260]	922 [273]	1015 [287]	1116 [301]	Construction technology/ Craftsman, Mason	DTET, VTA,	NVQ 72% of total 07 courses
3	Construction equipment operator	79 (60)	205	226	248	273	300	330	Construction equipment operator	Pvt	NVQ 63 % of total 8 courses
4	Electrician	281(189)	80 [263]	88 [276]	97 [290]	106 [304]	117 [320]	129 [336]	Electrician	DTET, VTA, NAITA, NYSC, NGO, Pvt.	NVQ 77 % of total 22 courses
5	Landscaper	23	9	10	11	12	13	14	Landscaper	Other Pub.	Non-available
6	Plumber/Pipe fitter	45 (13)	120 [226]	132 [237]	145 [249]	160 [262]	176 [275]	193 [288]	Plumber, pipe fitter and fixer	DTET, VTA,	NVQ 75 % of total 4 courses
7	Quantity surveyor	38	38	42	46	51	56	62	Quantity surveying	VTA, NYSC, DTET	NVQ 100 % of total 2 courses
8	Tile Layer	00	120 [33]	132 [35]	145 [36]	160 [38]	176 [40]	193 [42]	Tile Laying	Course is not available	
9	Painter	00	95 [109]	105 [114]	115 [120]	126 [126]	139 [132]	153 [139]	Building Painting	Course is not available	
10	Heavy vehicle operator	79	80 [125]	88 [131]	97 [138]	106 [145]	117 [152]	129 [160]	Heavy & light machine operator	Pvt	NVQ 63 % of total 8 courses
11	Industrial sewing machine operators	169	98 [1109]	108 [1164]	119 [1223]	130 [1284]	143 [1348]	158 [1415]	Tailoring/sewing/machi ne operators	VTA, NYSC, Pvt., Other Pub., NGO	NVQ 41% of total 17 courses
12	Plastic processing machine operator	00	24	24	26	29	32	35	Plastic processing	Course is not available	
13	Technical officers	00	119 [09]	131 [09]	144 [10]	158 [10]	174 [11]	192 [11]	Construction technical officers	Course is not available	

* Foreign demand is calculated based on the assumption that 10% of unsupplied workers in 2012 can be trained in the Central province. This assumption is justifiable as the population of the Central Province is about 12.6% of total population of Sri Lanka. Further, we assumed that foreign demand for Sri Lanka's skilled labour grows at a 5% rate annually.

Table 5.1 (cont.)

Present Training and Training Requirement of the Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Labour Requirement, Local & Foreign Demand (Foreign demand is given in brackets*)						Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
			2014	2015	2016	2017	2018	2019			
14	Civil work supervisor/foreman	00	130 [16]	143 [17]	157 [18]	173 [19]	190 [19]	209 [20]	Construction site supervision	DTET, NYSC	Available
15	Mechanical fixer/civil engineering	00	39 [40]	43 [42]	47 [44]	52 [46]	57 [49]	63 [51]	Civil engineering	DTET, VTA,	NVQ 25 % of total 4 courses
16	Aluminum fabricator	90 (80)	64 [28]	70 [29]	77 [31]	85 [32]	94 [34]	103 [36]	Aluminum fabrication	DTET, VTA, NGO, Other Public	NVQ 88 % of total 8 courses
17	Welder	203 (54)	92 [276]	101 [290]	111 [304]	122 [320]	135 [335]	148 [352]	Welder/welding works	DTET, NAITA, VTA, Other pub., NGO, NYSC,	NVQ 100 % of total 18 courses
18	Machinist	187 (52)	31 [103]	34 [108]	38 [114]	41 [119]	45 [125]	50 [131]	Machinist/ Lathe machine operator	DTET, NAITA, VTA, NGO, Other pub.,	NVQ 75 % of total 18 courses
19	Iron and steel fabricator	147	90 [277]	99 [291]	109 [305]	120 [321]	132 [337]	145 [354]	Iron and steel fabrication, Light engineering	Other Pub., NAITA, NGO	NVQ 17 % of total 6 courses
20	Automobile mechanic/ Automobile technology	281 (44)	143 [263]	157 [276]	173 [290]	190 [304]	209 [320]	230 [336]	Automobile mechanic/ technology	DTET, NAITA, VTA, NYSC, Other Pub., NGO, Pvt.	NVQ 79% of total 24 courses
21	Motor cycle and three wheeler mechanic	191 (61)	27	30	33	36	40	44	Motor cycle mechanic, Three wheeler mechanic	DTET, VTA, NYSC, Other Pub., NGO	NVQ 77% of total 17 courses
22	Automobile electrician/ electrical motor winder	101 (17)	56 [76]	62 [84]	68 [92]	75 [101]	82 [111]	90 [122]	Automobile electrician/ Electrical motor winder	DTET, NAITA, VTA, NGO, Other Pub.	NVQ 83% of total 12 courses
23	Automobile painter/tinkers	12	90 [56]	99 [59]	109 [62]	120 [65]	132 [68]	145 [71]	Automobile painting/tinkering	Other Pub.,	Not- available (only 01 course)
24	Automobile AC mechanic	00	25 [02]	28 [02]	30 [02]	33 [02]	37 [02]	40 [03]	Automobile AC mechanic	Course is not available	
25	Agricultural machine mechanic	11	50	55	61	67	73	80	Agricultural machine and equipment mechanic	NYSC	NVQ 100% of total 01 course

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Table 5.1 (cont.)

Present Training and Training Requirement of the Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Labour Requirement, Local & Foreign Demand (Foreign demand is given in brackets*) 2014	2015	2016	2017	2018	2019	Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
26	Phone and mobile phone repairer	11	30	33	36	40	44	48	Phone and mobile phone repair	NGO	Not- available (only 01 course)
27	Refrigerator and AC mechanic	79	19 [172]	21 [189]	23 [208]	25 [229]	28 [252]	31 [277]	Refrigerator and AC mechanic	DTET, VTA	NVQ 100% of total 07 courses
28	Radio, TV and household equipment repair worker	169 (64)	52	57	63	69	76	84	Radio, TV and household equipment repair	DTET, NAITA, VTA, NYSC, NGO, Pvt., Other Pub.	NVQ 84% of total 19 courses
29	ICT technician	420 (74)	90 [06]	99 [06]	109 [07]	120 [07]	132 [07]	145 [08]	ICT Technician	DTET, NAITA, VTA, NYSC, Other Pub., NGO, Pvt.	NVQ 64% of total 28 courses
30	Computer graphic designer	300 (24)	106 [04]	117 [04]	128 [04]	141 [04]	155 [04]	171 [04]	Computer graphic designer	NYSC, Other Pub., NAITA, NGO, Pvt	NVQ 20% of total 15 courses
31	Desktop publisher /printer	105	33	36	40	44	48	53	Desk top publishing /printing	VTA, Other Pub., Pvt	Not -available (total 4 courses)
32	Computer application assistant	320 (305)	259 [05]	285 [05]	313 [06]	345 [06]	379 [06]	417 [06]	Computer applications	DTET, NAITA, VTA, NYSC, Other Pub., NGO, Pvt	NVQ 68% of total 25 courses
33	Web designer	120	8	9	10	11	12	13	Web designer	NYSC, Other Pub., NGO, Pvt.,	Non-available (total 8 courses)
34	Hardware technician	210 (55)	94 [06]	103 [06]	114 [07]	125 [07]	138 [07]	151 [08]	Hardware technician	DTET, NAITA, VTA, Other Pub., NGO, Pvt.	NVQ 57% of total 14 courses
35	Network technician	75 (16)	31	34	38	41	45	50	Network technician	DTET, VTA, Other Pub., NGO,	NVQ 60% of total 05 courses
36	Computer operator	120	42 [05]	46 [05]	51 [06]	56 [05]	61 [06]	68 [05]	Computer studies	NYSC, Other Pub., NGO, Pvt.,	Non-available (total 8 courses)
37	Computer programmer	45	47 [03]	52 [03]	57 [03]	63 [03]	69 [04]	76 [04]	Computer programming	NGO, Pvt.,	Non-available (total 3 courses)

* Foreign demand is calculated based on the assumption that 10% of unsupplied workers in 2012 can be trained in the Central province. This assumption is justifiable as the population of the Central Province is about 12.6% of total population of Sri Lanka. Further, we assumed that foreign demand for Sri Lanka's skilled labour grows at a 5% rate annually.

Table 5.1 (cont.)

Present Training and Training Requirement of the Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Labour Requirement, Local & Foreign Demand (Foreign demand is given in brackets*)						Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
			2014	2015	2016	2017	2018	2019			
38	Multimedia operator	30	43	47	52	57	63	69	Multimedia operator	Pvt.,	Non-available (total 1 course)
39	Software developer	15	53	58	64	71	78	86	Software technology	Pvt.,	Non-available (total 1 course)
40	Accountant	30	4	4	5	5	6	7	Computerized accounting	Pvt.	Non-available (total 2 courses)
41	Hotel managers/middle level	30	51	56	62	68	75	83	Hotel management/middle level	Pvt.	Non-available (total 2 courses)
42	Restaurant and bar service-barmen	15	39 [23]	43 [24]	47 [25]	52 [27]	57 [28]	63 [29]	Restaurant and bar service-barmen	Other Pub.,	NVQ 100% of total 01 course
43	Cook	120	150 [24]	165 [25]	182 [26]	200 [28]	220 [29]	242 [31]	Cook /cookery	VTA, Other Pub, Pvt.	NVQ 57% of total 07 course
44	Chef	00	27	30	33	36	40	44	Chef	Course is not available	
45	Chef de party	00	162 [56]	178 [59]	196 [62]	216 [65]	237 [68]	261 [71]	Chef de party	Course is not available	
46	Kitchen Assistant	00	162	178	196	216	237	261	Kitchen Assistant	Course is not available	
47	Room Attendant/Boy	60	210 [39]	231 [41]	254 [43]	280 [45]	307 [47]	338 [50]	Room Attendant/Boy	VTA,	NVQ 100% of total 04 courses
48	Pool attendant	00	27	30	33	36	40	44	Pool attendant	Course is not available	
49	Waiter/steward	45	270 [300]	297 [315]	327 [331]	359 [347]	395 [365]	435 [383]	Waiter/steward	VTA, Pvt.	NVQ 100% of total 03 courses
50	Stores worker	00	81	89	98	108	119	131	Stores worker	Course is not available	
51	Life Guard	00	54	59	65	72	79	87	Life Guard	Course is not available	

* Foreign demand is calculated based on the assumption that 10% of unsupplied workers in 2012 can be trained in the Central province. This assumption is justifiable as the population of the Central Province is about 12.6% of total population of Sri Lanka. Further, we assumed that foreign demand for Sri Lanka's skilled labour grows at a 5% rate annually.

Table 5.1 (cont.)

Present Training and Training Requirement of the Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Labour Requirement, Local & Foreign Demand (Foreign demand is given in brackets*)						Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
			2014	2015	2016	2017	2018	2019			
52	Gardner	00	54	59	65	72	79	87	Gardner	Course is not available	
53	Security staff	00	108	119	131	144	158	174	Security staff	Course is not available	
54	Night Auditor	00	27	30	33	36	40	44	Night Auditor	Course is not available	
55	Cashier	00	27	30	33	36	40	44	Cashier	Course is not available	
56	Laundry Staff	00	81	89	98	108	119	131	Laundry Staff	Course is not available	
57	Helpers	00	101 [62]	111 [65]	122 [68]	134 [72]	148 [75]	163 [79]	Helpers	Course is not available	
58	Ironers	00	20	22	24	27	29	32	Ironers	Course is not available	
59	Technicians	00	8	9	10	11	12	13	Technicians	Course is not available	
60	Batik worker	11	18	20	22	24	26	29	Batik	Other Pub.	Not-available (only 01 course)
61	Embroidery worker	90	90	99	109	120	132	145	Embroidery works	Other Pub., NGO, Pvt.,	NVQ 25% of total 08 courses
62	Curtaining worker	23	23	25	28	31	34	37	Curtaining	Pvt.,	Not-available (only 02 courses)
63	Pattern maker	34 (06)	29 [05]	32 [05]	35 [06]	39 [06]	42 [06]	47 [06]	Pattern maker	VTA,	NVQ 100% of total 03 courses
64	Cutters	00	2	2	2	3	3	3	Cutters	Course is not available	
65	Patch worker	23	23	25	28	31	34	37	Patch work	Pvt.	Not-available (only 02 courses)
66	Garment quality controller/checker	23	20	22	24	27	29	32	Garment quality controller/checker	VTA	NVQ 100% of total 01 course

* Foreign demand is calculated based on the assumption that 10% of unsupplied workers in 2012 can be trained in the Central province. This assumption is justifiable as the population of the Central Province is about 12.6% of total population of Sri Lanka. Further, we assumed that foreign demand for Sri Lanka's skilled labour grows at a 5% rate annually.

Table 5.1 (cont.)

Present Training and Training Requirement of the Central Province

S/N	Occupation	Present Number 2013 (# NVQ)	Additional Requirement including foreign demand						Related Training Programme	Responsible Agency/s for Training	Availability or Non-availability of NVQ Curricular
			2014	2015	2016	2017	2018	2019			
67	Clerical staff	00	12	13	15	16	18	20	Clerical Grades	Course is not available	
68	Supervisors	00	06 [26]	07 [27]	07 [29]	08 [30]	09 [32]	10 [33]	Supervisors	Course is not available	
69	Beautician and hairstylist	630 (145)	48	53	58	64	70	77	Beautician and hairstylist	VAT, NYSC, NGO, Pvt, NAITA,	NVQ 80% of total 24 course
70	Baker	75 (11)	41	45	50	55	60	66	Baker	NGO, Pvt., VTA,	NVQ 80% of total 05 courses
71	Fruit and vegetable processor	15	82	90	99	109	120	132	Fruit and vegetable processing	DTET	NVQ 100% of total 01 course
72	Food processor	30 (50)	80	88	97	106	117	129	Food technology/ processing	DTET, NGO	Non-available (only 02 courses)
73	Agriculture/farm manager	90	35	39	42	47	51	56	Agriculture/farm management	Other Pub., NGO, Pvt.	Available (06 courses)
74	Production technologist	15 (05)	35	38	41	46	50	55	Production technology	DTET	Non-available (only 01 course)
75	Jewelry manufacturer	30	5	6	6	7	7	8	Jewelry manufacturer	DTET	Non-available (only 02 courses)
76	Gem cutter and polisher	15	11	12	13	15	16	18	Gem cutting and polishing	Pvt.	Non-available (only 01 course)
77	Front Office/ receptionist	98	37	41	45	49	54	59	Front Office/ Receptionist	Other Pub., Pvt., NGO,	NVQ 33% of total 03 courses

Source: Sector Reports (Chapter 4) and Training Profile (Chapter 5) of the VET Plan, Central Province

* Foreign demand is calculated based on the assumption that 10% of unsupplied workers in 2012 can be trained in the Central province. It is assumed to grow at 5% rate annually.

5.2 Training Interventions

Chapter 5 of this report highlighted several issues related to VET provision in the Central Province. In order to overcome above issues, the following interventions are suggested:
To expand the training provision,

- Introduce new training programmes for the required areas/fields;
- Expand existing training programmes as required;
- Establish new training institutes/centers as necessary;

To improve the quality of training,

- Bring all training programmes under NVQ accreditation and discourage the offer of courses by unregistered training providers;
- Initiate better and regular interactions with industrial sector, training institutes and trainees;
- Adapt training curriculum to include components on work ethics, job responsibilities, punctuality and social responsibilities of trainees;
- Guarantee an adequate or sufficient duration of practical training for all types of training;
- Enhance programmes and activities conducted to introduce trainees to industry sectors;

To overcome resource constraint of training institutes,

- Offer attractive remuneration packages or incentive system for managers and teachers in training institutes to absorb qualified and skilled persons in to training institutes and retain them;
- Provide necessary physical resources for training programmes.

To absorb more students to TVET system,

- Introduce and enhance awareness programmes on job opportunities (local/foreign) and benefits of training, especially in the areas of training where participation is low due to unfavourable social and personal attitudes;

To improve welfare/well being of students,

- Provide residential facilities for students attending from remote areas;
- Introduce a financial support system for students in terms of bursaries /scholarships /loan schemes during the training period;

To enhance the coordination and facilitation of training provision,

- Set up a provincial level governing and coordinating body (Provincial Steering Committee-PSC) of TVET in the Central province under TVEC;
- Introduce and implement any major structural/policy changes of the TVET system in consultation with all/major stakeholders.

5.3 Vocational Education and Training Plan

This section provides the proposed training plan for the vocational education and training in the Central province during the 2015-2019 five-year period. The training plan is prepared based on the gap between demand for and the supply of training and outcomes of the sample surveys of training institutes, trained persons, current trainees and expert and focus group discussions. The following objectives are set with related strategies in drawing up the Vocational and Education Training Plan for the Central Province:

1. Increase TVET accessibility to larger number of youth inclusive of special needs and vulnerable groups;

2. Promote TVET as a skill development path that assures employment with clear upward mobility in career which attracts more youth to follow TVET courses;

3. Improve quality and relevance of TVET courses;

4. Strengthen the coordination and implementation of TVET programmes with training institutions, chambers of commerce and industry sector, provincial planning and policy implementation authorities and the TVEC

Objective 1. Increase TVET accessibility to a larger number of youth inclusive of special needs and vulnerable groups

Strategy 1.1 Establish new training centres

Activity no	**Activity**	**2015**	**2016**	**2017**	**2018**	**2019**	**Responsible Agencies**
1.1.1	Establish Training centres in Divisional Secretariat divisions. e.g. Akurana in Kandy Raththota in Matale Kandapola, Pusselawa, Gampola and Kothmale in Nuwaraeliya						Vocational Training Centers (VTCs), Provincial Council, DSs and TVEC
1.1.2	Train and deploy of adequate number of qualified teachers and trainers for training provision						
1.1.3	Establish specific training centers based on resource availability of the area and requirements of the industry e.g. brass related training center at Pilimathalawa						
1.1.4	Training to arrange for women specially those heading households, differently abled people, disadvantaged youth and migrant workers in training centers at selected/ strategic locations						
1.1.5	Modify training centres and equipments in order to facilitate training for differently-able persons						Vocational Training Centers (VTCs), Provincial Council, DSs and TVEC

Strategy 1.2 Introduce new training programmes in the fields where current training is non-existence but identified as necessary by this report

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
1.2.1	Conduct short courses in village level using mobile training centers						Proposed PSC and all VTCs
1.2.2	Introduce new training programmes for the fields in which training requirements identified by this report						Proposed PSC and all VTCs
1.2.3	Plan and implement training for occupations for which NCS, curricula and assessment materials are already available.						TVEC, Proposed PSC, VTCs NAITA and all training institutes & DSs
1.2.4	Develop and implement short term skills upgrading training for those already employed in above occupations in order for productivity improvements						TVEC, Proposed PSC, VTCs NAITA and all training institutes
1.2.5	Implement assessment programmes to recognize prior learning of practising craftsmen and employees for NVQ certifications						TVEC, Proposed PSC , VTCs NAITA and all training institutes
1.2.6	Develop and implement Entrepreneurial development training programmes for trainees and persons already engaged in the relevant sector.						TVEC, Proposed PSC, VTCs NAITA and all training institutes

Strategy 1.3 Facilitate training and assessment in Tamil medium

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
1.3.1	Develop, deliver and evaluate courses in Tamil medium in all three districts						Proposed PSC &all VTCs
1.3.2	Translate all existing course material into three medium						

Strategy 1.4 Prepare trainees for foreign job market

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
1.4.1	Obtain accreditation for few courses conducted in training institutes initially						Relevant ministries, TVEC and Proposed PSC
1.4.2	Develop and offer courses in line with requirement from foreign contries (as given in Table 5.1)						Relevant ministries, TVEC, Proposed PSC

Objective 2:Promote TVET as a skill development path that assures employment with clear upward mobility in career which attracts more youth to follow TVET courses

Strategy 2.1 Strengthen career guidance and counselingprogrammes in the province.

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
2.1.1	Create a database of government officers and private sector employees whose service can be obtained on carrier guidance and counseling						Provincial Council, Proposed PSC & DSs and all VTCs
2.1.2	Establish Steering Committee for career guidance and counselling in all three disctricts						Proposed PSC & DSs and all VTCs
2.1.3	Prepare an annual action plan for carrier guidance and counseling for target groups and implement it						Proposed PSC & DSs and all VTCs

Strategy 2.2 Promote TVET among school children in partnership with school system and industry

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
2.2.1	Conduct awareness programmes of TVET among school children once						Proposed PSC, all VTC, Zonal Education

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
	in three months e.g target group could be A/L and O/L students						Directors
2.2.2	Provide short-term basic training for school children (especially technology stream students, training camps)						Proposed PSC and all VTCs and school principals

Strategy 2.3 Promote TVET among industry and general public

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
2.3.1	Conduct awareness programmes of TVET among industries and general public e.g. organizing job fairs						Proposed PSC and all VTCs

Strategy 2.4 Introduce a financial support system for students

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
2.4.1	Introduce financial support system for students based on scholarship, bursary or loan schemes (need based support system)						TVEC and Proposed PSC

Objective 3. Improve quality and relevance of TVET courses

Strategy 3.1 Promote registration of VET centers and accreditation of courses

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.1.1	Use DS divisions resources to identify unregistered training centers						TVEC, Proposed PSC and DSs
3.1.2	Register all training centres in liaison with all Divisional Secretariats and accredit courses where NCSs are available enabling NVQ certification						TVEC, Proposed PSC and DSs

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.1.3	Advertise in news papers in addition to gazette notification of all registered training centres in the province. Prepare separate lists for each district and display in all Divisional Secretariat offices in respective districts						TVEC, Proposed PSC

Strategy 3.2 Training of trainers

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.2.1	Identify training requirements for trainers to facilitate accreditation and development of training programmes						Proposed PSC and TVEC
3.2.2	Prepare an action plan for upgrading skills of trainers incorporating skills for delivery of life skills, entrepreneurship development, etc						Proposed PSC and TVEC
3.2.3	Conduct workshops and training sessions for regular upgrading of above skills and sharing experience						Proposed PSC and TVEC

Strategy 3.3 Provide infrastructure requirements to training institutes

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.3.1	Set national standards / quality measures, policies for training institutes						Proposed PSC and TVEC
3.3.2	Issue required funds or provide opportunity to earn money to develop / upgrade respective institutes						Proposed PSC and TVEC
3.3.3	Monitor the standards of training institutes by the						Proposed PSC and TVEC

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
	provincial and district steering committees						
3.3.4	Facilitate the upgrading of existing training institutes and do not issue registration for institutes with sub-standard facilities						Proposed PSC and TVEC

Strategy 3.5 Guarantee an adequateduration of practical training

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.5.1	Identify Key Performance Indicators (KPI) of a job where the training is given						TVEC, Proposed PSC and VTCs
3.5.2	Prepare a detailed plan of practical training arrangements with the industry sector for each training programme						All VTCs, proposed PSC and TVEC
3.5.3	Evaluate KPI of candidate after practical training and rate students accordingly						TVEC, Proposed PSC and VTCs

Strategy 3.6 Initiate programmes to enhance employability skills of TVET course completers

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.6.1	Integrate life skills/soft skills development, with TVET programmes and implement NCS on Basic Competencies to work						VTCs, NAITA, TVEC, Proposed PSC and DSs
3.6.2	Develop and implement a system to promote social and creative engagement of TVET trainees						VTCs, NAITA, TVEC, Proposed PSC and DSs

Strategy 3.7 Develop entrepreneurship skills to promote self-employability of trainees

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.7.1	Integrate entrepreneur sensitizing programmes already developed with TVET programmes						VTCs, NAITA, TVEC, Proposed PSC and DSs
3.7.2	Develop and implement a follow up programme to provide post training support linked up with starter loan schemes such as SEPI loans from relevant agencies						VTCs, Banks, Proposed PSC and DSs

Strategy 3.8 Offer attractive remuneration packages or incentive system for managers and teachers in training institutes

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
3.8.1	Categorize all profession according to workload and responsibility and grade them						TVEC and Proposed PSC
3.8.2	Offer salary/other benefits based on the categorization/grade and performance						TVEC

Objective 4: Strengthen the coordination and implementation of TVET programmes with training institutions, chambers of commerce and industry sector, provincial planning and policy implementation authorities and the TVEC

Strategy 4.1 Establish district-level TVET Steering Committees to coordinate and monitor the implementation of the VET Plan in the districts

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
4.1.1	Establish district-level TVET Steering Committees comprising representatives from						Relevant provincial officers TVEC, Proposed PSC

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
	Provincial Council, District Secretariats, training institutes, Provincial Coordinating Body/TVEC						and DSs
4.1.2	Introduce policies and procedures governing district TVET						TVEC, Proposed PSC and DSs

Strategy 4.2 Create a mechanism to govern TVET sector and coordinate TVET activities with representations from Provincial Planning Unit, training institutions, chambers of commerce and TVEC

Activity no.	Activity	2015	2016	2017	2018	2019	Responsible Agencies
4.2.1	Crerate a Provincial Coordinating Body consisting of TVEC, provincial authorities, district steering committees, training centers and representatives from key chambers						Relevant provincial officers and TVEC
4.2.2	Develop and maintain a mechanism to obtain data on school leavers from school system and vocational training system and skill demand from the Industry sectors through the unit						Proposed PSC

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