Vocational Education and Training (VET) Plan for North Central Province

Tertiary and Vocational Education Commission

Ministry of Skills Development and Vocational Training

"Nipunatha Piyasa", 3rd Floor, 354/2, Elvitigala Mw.,

Colombo 05, Sri Lanka

Tel: +94-(0)115849291, Fax: +94(0)11-2555007

E-mail: info@tvec.gov.lk, Web: www.tvec.gov.lk

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PROVINCIAL
VOCATIONAL EDUCATION AND TRAINING PLAN
NORTH CENTRAL PROVINCE

2016 to 2020

TERTIARY AND VOCATIONAL EDUCATION COMMISSION

Ministry of Skills Development and Vocational Training

03rd Floor, "Nipunatha Piyasa"

354/2, Elvitigala Mawatha

Colombo 05

Foreword

The Tertiary and Vocational Education Commission is required to plan and coordinate work with regard to Technical and Vocational Education throughout the country. Amongst its functions is the preparation of Vocational Education plans, for different employment sectors as well as different areas.

This plan was undertaken at the request of the Chief Minister of the North Central Province, and was supported by the Government Treasury. The study was entrusted to a team from Peradeniya University, which made revisions in accordance with TVEC suggestions designed to ensure a practical plan that would help to bridge skills gaps.

On the basis of the findings of this and other studies, the TVEC has engaged in a programme of structural reforms with regard to the duration and content of courses. It began with developing a new Policy document in line with current national needs, and then revised the Operations Manual for certification with regard to National Vocational qualifications. Furthermore, the lead in developing curricula has now been entrusted to the newly established Sector Skills Councils, while several three month courses designed to prepare students for productive employment have been started.

Following a directive of the Minister, soft skills including English communicative capacity, have been introduced on all NVQ courses. New teachers have been hired and trained for this, while training for the new trade courses has been entrusted primarily to industry and those who will provide employment for students when they finish their course.

To ensure recognition of the potential contribution of trainees in the TVET sector, NVQ Level 3 is now to be treated on a par with the GCE (O/L) for employment, and NVQ Level 4 with GCE (A/L). This comparison existed previously in terms of the Sri Lanka Qualifications Standards, but Cabinet has endorse this position and a circular regarding employment in the government sector will be issued.

We hope that employers and training providers will study this plan, and make use of the new systems now in place to provide productive training and employment for youngsters in the Province.

Prof. Rajiva Wijesinha
Chairman
Tertiary and Vocational Education Commission

Acknowledgement

This Vocational Education and Training plan (VET plan) is a result of team work of TVEC and North Central Provincial Council Office. First I express my appreciation and gratitude to Hon. Chief Minister of the North Central Province for his request to prepare a provincial VET plan and for encouragement given. Chief Secretary of the Province, chaired meetings held with stakeholders and other participants in the development of this plan. Deputy Chief Secretary (Training), 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 Anuradhapura and Polonnaruwa provided their fullest support by providing access to various data sources and sending their experts to workshops held. The support given by the officials of the Provincial Secretariat needs special appreciation in organizing and conducting workshops and proving required information.

This VET plan is prepared by an academic team of University of Peradeniya. Prof. O. G. Dayaratna- Banda of Faculty of Arts 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 Dr. R. P. I. R. Prasanna, Senior Lecturer, Dr. Malaka Ranathilaka, Senior Lecturer, Dr. T. Vinayagathasan, Senior Lecturer, and Dr. H. M. W. A. Herath, Senior Lecturer. 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, and NYSC, other public sector, private and NGO training providers for their support. Officials who attended to workshops and discussions representing various government institutions 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 Deputy Director General and all Directors, all Deputy Directors, Mr. G.A.M.U. Ganepola, Actg. Deputy 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 Jayawardena
Director General
Tertiary and Vocational Education Commission

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Abbreviations

BLTI	=	Bishop Leo Technical Institute
CAA	=	Computer Application Assistant
COT	=	College of Technology
DOA	=	Department of Agriculture
DS	=	Divisional Secretariat
DTC	=	District Training Center
DTET	=	Department of Technical Education and Training
DVTC	=	District Vocational Training Center
FDI	=	Foreign Direct Investment
FIOHDF	=	Future in Our Hands Development Fund
GCE (A/L)	=	General Certificate of Education (Ordinary Level)
GCE (O/L)	=	General Certificate of Education (Advanced Level)
GDP	=	Gross Domestic Product
GND	=	Grama Niladhari Divisions
HR	=	Human Resources
ICT	=	Information and Communication Technology
MC	=	Municipal Council
NAITA	=	National Apprentice and Industrial Training Authority
NC	=	National Certificate
NCP	=	North Central Province
NGO	=	Non-governmental Organizations
NVQF	=	National Vocational Qualification Framework
NYSC	=	National Youth Services Council
OIC	=	Officer in Charge
PS	=	Pradeshiya Sabha
SATI	=	St Anthony's Technical Institute
SDA	=	Skills Development Assistants
SLITHM	=	Sri Lanka Institute of Tourism and Hotel Management
SLTDA	=	Sri Lanka Tourism Development Authority
SMEs	=	Small and Medium Enterprises
SOSV	=	Technical Colleges in SOS Children's Villages

TC	=	Technical College
TV	=	Television
TVEC	=	Tertiary and Vocational Education Commission
TVET	=	Tertiary and Vocational Education & Training
UC	=	Urban Council
VET	=	Vocational Education and Training
VTA	=	Vocational Training Authority
VTC	=	Vocational Training Center
WDC	=	Women Development Center

Definition of Key Terms

Technical education:-	The academic and vocational preparation of students for jobs involving applied sciences and modern technology. It emphasizes the understanding and practical application of basic principles of science and mathematics rather than the attainment of proficiency in manual skills
Vocational education:-	The education and training that provides practical experience in a particular occupational field based on manual skills.
Apprenticeship:-	Proficiency in some manual skills.
Skilled Worker:-	A worker who has special skills, training, knowledge, and acquired ability to perform a specific task at the highest efficiency and productivity.
Semi-skilled worker:-	A worker who has some skills, training, knowledge, and acquired ability to perform a specific task at the some degree of efficiency and productivity.
Livelihood:-	A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.
Compound Growth Rate:-	The year to year growth rate of any value over a specific period of time that encompass all the possible factors that determine the rate of growth of that value.
Labour Force:-	The actual number of people available for work at a given time. It includes both employed and unemployed persons.

EXECUTIVE SUMMARY

The preparation of a VET plan is justified on several grounds. First, individuals with improper and informal training are engaged in occupations that require formal training in the industry. Second, provision of courses is mostly supply-driven and not demand-driven. Third, most youths are confronted with a system which has traditionally been focused on educating for public sector employment, with little regard for the needs of the private sector. Fourth, most institutes do not educate and train people for regional and national needs. Fifth, TVET provided by government institutes and other non-state institutes have seemingly suffered from neglect and irrelevance, instead, traditional apprenticeship in the informal sector predominates in the workforce of most key industries in the country. Sixth, instead of excluding informal sector training, addressing the identification of job seekers by applying National Vocational Qualification Framework (NVQF) and implementing TVEC skills certification systems currently existing in the form of accreditation is needed. Finally, educational and training institutes seemingly lack partnerships with the private sector at all levels of education and training.

The objectives of the TVET plan were: to evaluate the labour force trends in the province, and to make forecasts for the next five years; to assess the skilled and semi-skilled manpower requirements of industry sectors for the next five years; to assess the supply of vocational education and training by the institutes during the next five years; to assess the quality and relevance of various courses offered by the institutes in the province; to examine the institutional arrangements and incentive structures of the province availing to facilitate and stimulate TVET programmes; to examine the existing mismatch between supply of and demand for vocational education and training courses in the province; and to propose a plan of action in order to provide productive and efficient vocational education and training programmes to meet the demand of the industry.

A systematic procedure to gather data and arrive at findings and conclusions to make feasible recommendations was adopted. First, in order to gather preliminary data, stakeholder consultation workshops were held in Anuradhapura in collaboration with TVEC and NCP. Second, various sources of secondary data were used to gather data on socio-economic environment of the province including labour market characteristics. Third, in order to gather data on labour requirements of the key industry sectors for the next five years, a detail structured

questionnaire was executed for all the recorded and relevant industrial enterprises of the province focusing on the total industrial enterprises obtained from the divisional secretariats, other state agencies of the province, Chambers of Commerce and Industry. Fourth, a structured questionnaire survey was conducted to gather data on existing courses, their quality of delivery from education and training providers of the province. Fifth, a structured questionnaire survey was also conducted to gather data on the satisfaction of trainees focusing on a sample of students from educational and training institutes of the province. Sixth, focus group discussions were conducted with a selected number of state officials, members of the chambers of commerce and industry, and representatives of education and training providers to gather qualitative data on issues and problems of TVET programmes/courses. Seventh, focus group discussions were also held with persons who are involved in livelihood occupations in the province to gather data on possible training needs of the livelihood occupants. Eighth, workshops were held in Anuradhapura to obtain feedback and validate the sector proposals of industry sectors of the province. Finally validation workshops were held in collaboration with TVEC and the NCP to obtain feedback on the proposed draft VET Plan. The plan was endorsed by the participated stakeholders.

The study has identified the training needs of the livelihoods sector as well as in the TVET sector. The demand surveys confirm that there is a excess supply of training in some areas while there is a shortage of training in some other areas. Moreover, new training programmes are required to cater to the needs of the new occupations emerged as a results of changing industry and economic environment. The use of various machinery and equipment in the production process has also necessitated these new training programmes. There are specific recommendations to address specific issues related to training in the province.

The study also uncovered a number of important general findings. First, already provided livelihood training programmes through various government schemes heavily biased towards “awareness raising” or “knowledge” on particular occupations. The livelihoods occupants are of the opinion that there is a lack “specific skills” on a particular occupation. Second, the industry sectors in the province are highly dominated by informal economic activities and unskilled labour. Third, most industries appear to depend on trainees of the TVET institutes for employment as substitutes for permanent employment. This has hindered industry from recruiting permanent workforce. Fourth, a lack of occupational standardization has negatively affected demand for skilled labour. There is no system to differentiate a highly skilled person from the

low skilled person in a particular profession. Fifth, the size of the formal economic activities in the province is about 20% of the total economic activities, and the formal sector with wage labour is very weak. Finally, it was also observed through the interviews with some skills development assistants in DS divisions those TVET institutes do not have sufficient number of courses for GCE (A/L) technology stream students.

Chapter 01

Introduction

1.1. Background

Tertiary and Vocational Education Commission (TVEC) of the Ministry of Youth Affairs and Skills Development has embarked on an ambitious project to develop Vocational Education and Training plans (VET) for each province of the country on the instructions of H.E the President with a view to identifying human resource and training needs of each province and developing feasible strategic plans to address the identified developmental issues. This report is an outcome of a project commissioned by the TVEC in collaboration with the North Central Provincial Council (NCPC) with the behest of honorable Chief Minister. The report is prepared to meet the requirements of the TVEC in consistent with its guidelines to meet the general and specific objectives in creating a five year tertiary and vocational education plan for the NCP.

1.2. Rationale

There has been a heightened attention and thrust towards creating a skilled workforce in Sri Lanka to assist the process of creating Sri Lanka as the next Asian Miracle. The government has envisioned a long term strategy along with clear plan of action and investment to create knowledge and skills based society through higher education system and TVET. In order to facilitate this nationally important policy thrust clear plans of actions are required to identify the skills needs and training supply in the future.

However, Sri Lanka has both a significant pool of unfilled job vacancies and persistent unemployment as evident by job market information and labour force data. Preparation of a VET plan can be justified on several grounds. First, individuals with improper and informal training are engaged in occupations that require formal training in the industry. Second, provision of courses is mostly supply-driven and not demand-driven. High vacancy rates in the presence of large scale unemployment confirm the existence of skills mismatches in the country. Existing skills mismatches in the country also point out a poor quality of education and the absence of linkages between education systems and employers as underlying problems. Third, most youths are confronted with a system which has traditionally been focused on educating for public sector employment, with little regard for the needs of the private sector. Most institutes do not educate

and train people for regional and national needs. Vocational education and training (TVET) has the potential to provide youth with more applied skills and better chances in the labour market which should, however, be properly recognized and addressed. Fifth, TVET provided by government institutes and non-state institutes have seemingly suffered from neglect and irrelevance, instead, traditional apprenticeship in the informal sector predominates in the workforce of most key industries in the country. This has resulted in poor quality output, resource wastage, inefficiency, low productivity and sluggish growth in the industry. Sixth, instead of excluding informal sector training, addressing the identification of job seekers by applying National Vocational Qualification Framework (NVQF) and implementing TVEC skills certification systems currently existing in the form of accreditation is needed. Seventh, educational and training institutes seemingly lack partnerships with the private sector at all levels of education and training. Finally, the Budget Speeches presented to the Parliament of Sri Lanka in recent times have emphasized that there is a high and growing global demand for semi-skilled and skilled manpower so that by developing vocational and technical education, Sri Lanka might be able to tap some of those global occupations to redress the unemployment problem in the country in the short to medium term. The Budget Speech 2013 has seriously emphasized the importance of developing vocational and technical education in the country basically to serve those who do not qualify to study GCE (A/L) and those who could not enter the universities after GCE (A/L). The government has proposed an ambitious plan with financial allocations to make advancements in this area.

As a result, identification of skilled and semi-skilled manpower demand of the industry and the quality and the relevance of the vocational education programmes/courses have to be properly recognized. To be successful in supplying skilled and semi-skilled manpower to the industry in consistent with the demand, the TVET system of institutes in the province needs a clear vision of the desired outcome and have to be focused on sectors with promising employment prospects. Continuous update and revision of existing courses and introduction of new courses might be required to address the changing and dynamic employment prospects in the industry. A TVET plan is expected to assist the TVEC and other state and non-state institutes to plan and implement the supply of vocational education and training programmes/courses for the NCP to meet the dynamic and changing human resource demands of the key industry sectors.

1.3. Objectives

i. To evaluate the labour force trends in the province, and to make forecasts for the next five years,
ii. To assess the skilled and semi-skilled manpower requirements of industry sectors in the NCP for the next five years,
iii. To assess the supply of vocational education and training by the institutes during the next five years,
iv. To assess the quality and relevance of various courses offered by the institutes in the province,
v. To examine the institutional arrangements and incentive structures of the province to facilitate and stimulate TVET programmes,
vi. To examine the existing mismatch between supply of and demand for vocational education and training courses in the province,
vii. To propose a plan of action for the NCP in order to provide productive and efficient vocational education and training programmes to meet the demand of the industry.

1.4. Activities

i. In association with TVEC organize two district planning workshops in 02 districts were held to identify key industry sectors in the province on district basis and their issues and complete information related to development of the provincial VET Plan.
ii. Socio-economic analysis of the districts was done based on secondary data and information gathered at the Planning workshops and to identify economic trends.
iii. Output of the school system was analyzed in the province and estimate new entrants to the labor market with a forecast for next 05 years.
iv. Main industry sectors were surveyed for preparing sector reports on district basis with the forecast for demand for skills and supply of skilled manpower (for main occupations in major industry sectors) for next 5 years.
v. Livelihood occupations existing in the province were identified and their skills needs were assessed through consultation and focus group discussions of relevant occupations.
vi. Focus group discussions and expert meetings were held to get sector reports validated and make demand side analyses
vii. Skills supply of TVET system mainly TVET capacities, quality and other related issues and staff development needs were analyzed through a structured questionnaire survey
viii. Validation workshops were held to get the VET Plan validated.

1.5. Materials and Methods

The study required collection of data from various sources following both primary data collection methods and secondary data collection methods. The study adopted the following methods to collect and analyze data:

i. **Socio-economic and Other Secondary Data:** To obtain data on administrative structure of the province; geography and climate of the province, demography in the province; economic structure, employment and income; education system including literacy in the province, number of schools and student enrolment in the province, student teacher ratio, students' performance, university admission, drop outs, eligible customers for the vocational training providers in the province etc, the project team used data from the North Central Provincial Council and its ministries, Department of Census and Statistics, Central Bank sources, Ministry of Education and Higher Education, UGC, details of current employment in major industry sectors and Department of Examination.

ii. **Training Supply Data:** The data on TVET institution network, potential supply of skilled manpower to the labour market in the province, course mix currently available in the districts, annual training outputs from TVET providers, availability of assessors and teachers in the province, extent of implementation of NVQ Framework in the province, training provision for special groups (underprivileged, differently able, vulnerable etc.) were gathered from the public and private tertiary and vocational training institutes operating in the province.

iii. **Demand for Skilled Manpower in the Key Economic Sectors:** Medium and long term prospectors of the major industry sectors in the province covering details of current employment in major industry sectors, existing manpower, migrant workers profile in major industry sectors, and emerging occupations or training areas were identified. To supplement the secondary data obtained with respect to the above subjects, a comprehensive survey covering the total population of industrial establishments located in Anuradhapura and Polonnaruwa districts were carried out. Enumerators were used for survey.

iv. **Key informant discussions and Case Studies:** Key informant discussions were held with a selected number of respondents in TVET institutes and industry representatives. A sample of 40 Skills Development Assistants from two districts attached to Ministry of Youth Affairs and Skills Development were interviewed to gather their feedback on the demand for skilled manpower, leading industries, and their perception on training and facilities of TVET institutes.

v. **Livelihood occupations:** In order to collect data on training needs of the livelihood occupations, an unstructured questionnaire survey was done for a sample of 60 respondents from two districts covering different types of occupations.

vi. **Data analysis:** Since the study expected to identify the gaps between the supply of tertiary and vocational training and the demand for such training, we undertook a Gap Analysis technique for analyzing data. Statistical methods as well as qualitative analytical techniques were used for the analysis. Forecasting was done using a statistical forecasting model. This enabled us to identify the policy interventions required to fill the gaps through changing the structure, content and delivery modes of existing tertiary and vocational training, the need for introducing new tertiary and vocational training programmes, and the needed changes in the institutional structure, and the reforms required in the quality assurance frameworks. Econometric methods were applied to forecast the labour market expansions and demand for skilled workers by the industry sector.

1.6. The Outline of the Report

The remaining sections of the report are organized into five chapters. Chapter two of the report describes and explains the socio-economic environment of the province by focusing on educational and training needs based on possible demands of the key industry sectors with a five year forecast. Secondary data was used for the analysis. Chapter three discusses training needs of livelihood occupations operating in the NCP. Chapter four of the report analyses the current and future skilled labour demand of each industry sectors focusing on the training requirements and employment prospects. Chapter five analyses available vocational education and training courses of the province, aspects related to quality and relevance of various courses, standards of course delivery, and guidance and counseling activities to promote courses. The existing mismatch of

the supply of and the demand for vocational education and training courses are also analyzed in this section. Final chapter provides the proposed VET Plan for the NCP addressing the vocational education and training needs, including macro and micro level changes and interventions required to provide efficient and productive educational and training programmes.

Chapter 2

Socio-Economic Environment of the North Central Province

2.1 Background

The North Central Province in Sri Lanka consists of two administrative districts, namely Anuradhapura and Polonnaruwa. The NCP is mainly an agriculture dominated region, paddy being the main crop. In addition, small and medium scale non-farm economic activities and tourism provide employment in the region. It comprises a larger part of the dry zone in the country with very high average temperatures. The province is mainly dominated by farming communities. Industry sectors in the province are largely dominated by informal economic activities and unskilled labour.

2.2 Administrative Structure of the Province

Sri Lanka inherited a parliamentary democratic system from British at the time of independence and continued to make amendments to the structure of administration throughout the post-independent period. The judicial and administrative structure of Sri Lanka is based on a republican constitution that combines components of parliamentary democracy. The executive President of the Republic is elected by the people and holds office for a term of six-years, and is entitle for reelection. The parliament consists of 196 members elected by the people and 29 members appointed from the national lists. The President appoints the Prime Minister and the Cabinet of Ministers and who is the Head of the Cabinet (Figure 2.1). The ministries, departments, and statutory bodies of the central government are also responsible for industrial development as well as planning and administering vocational and technical education in all provinces of the country.

The Constitution prescribes specific functions for the central government and provincial councils. The Central Government is prescribed to set national policies on all subjects and functions and has the power to approve legislation on the concurrent list of subject areas that have been listed as provincial subjects in the scheduled list. The mandatory functions of the central government include: national policy formulation, designing inter-governmental transfers, establishing and managing center-province relations, cadre and staffing in the government, and the administration of “internal affairs”.

Figure 2.1: Structure of the Central Government Administration

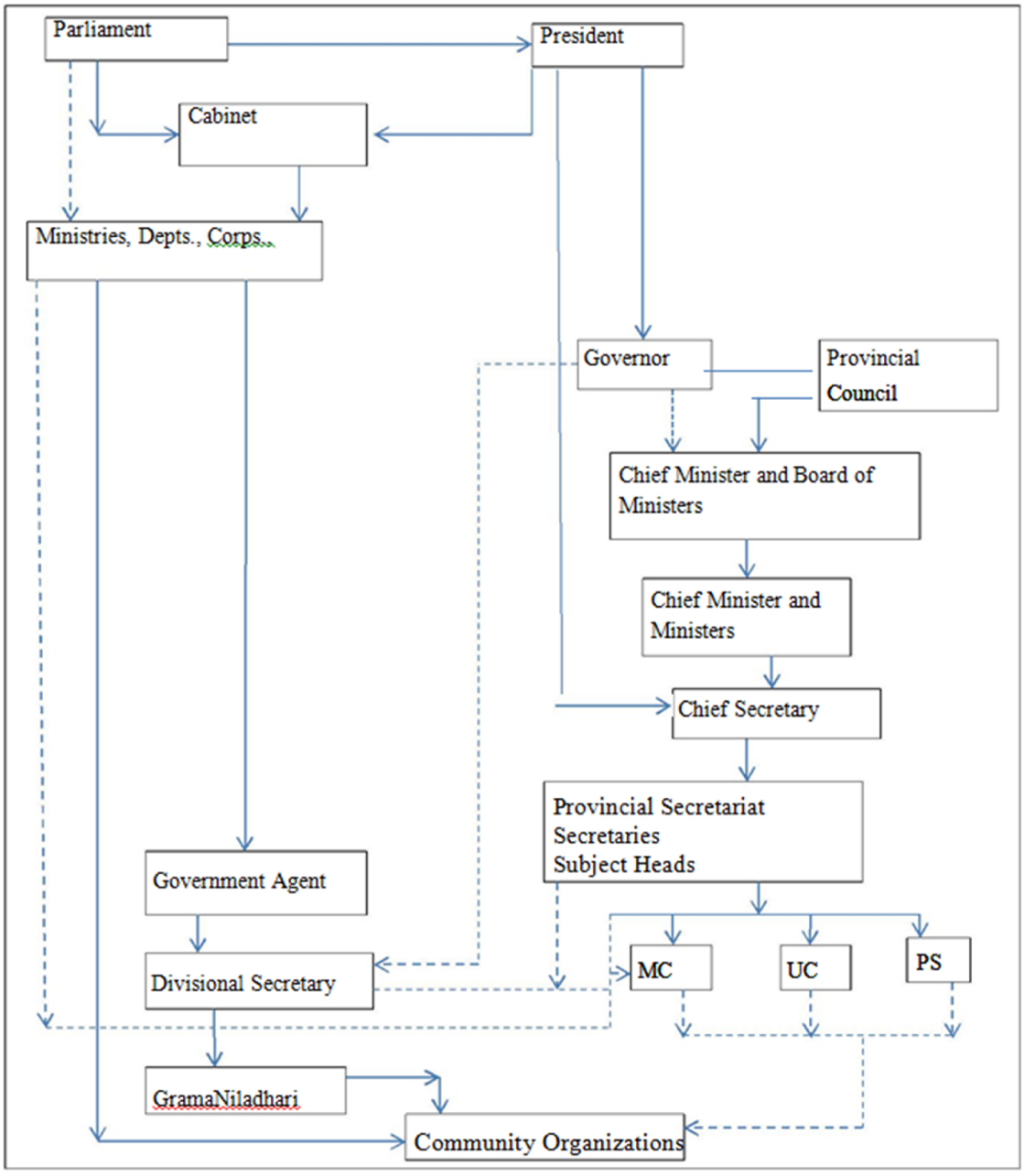
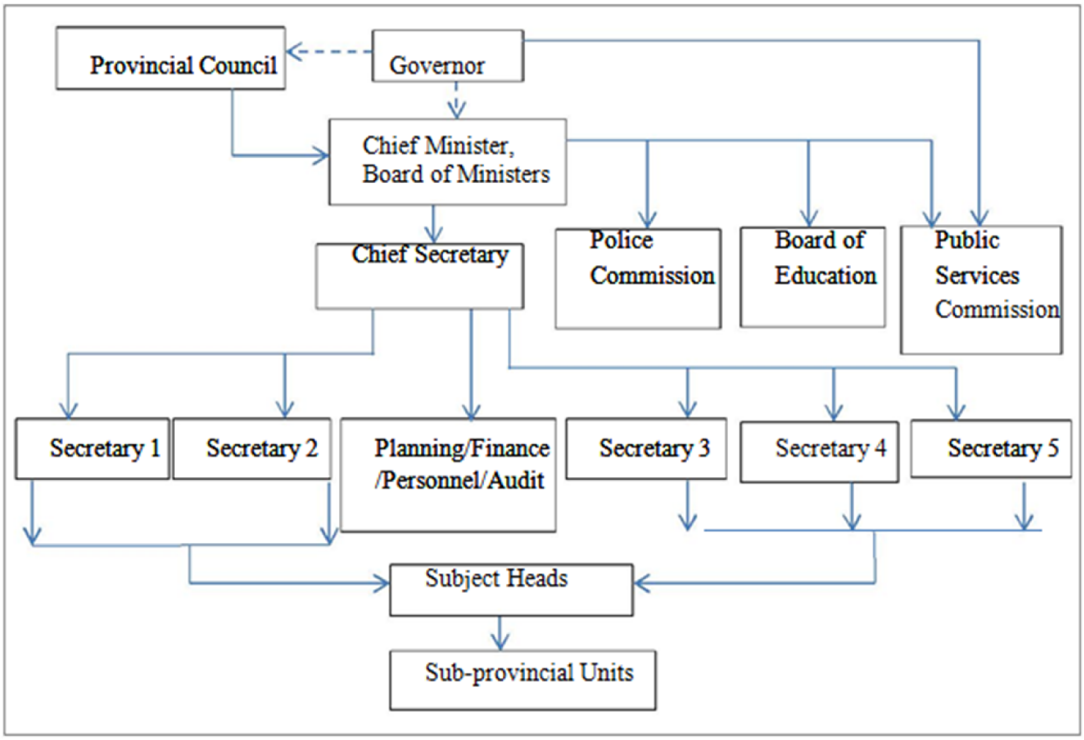


Figure 2.2: Organization of Provincial Council Administration



The country is organized into nine provinces for administration. Higher education and vocational and technical education are fundamentally under the purview of the central government while the provincial councils are entitled for planning and administering general education in the province. Since the PCs are involved in the provision of general education, they are an important arm of the structure of the government in planning and implementing vocational and technical education policies and programmes in the province for human resources development.

Power has been devolved to the provinces with the unit of devolution being the Provincial Council comprised of members elected by the people of each province. A Governor appointed by the President heads the province, while a Chief Minister appointed from the elected members, heads the Provincial Council. Provincial Councils are responsible for planning and implementing most provincial educational, health, and all other developmental efforts. With the establishment of the PCs, the administration in the country was decentralized. The assignment of responsibilities between the center and the provinces is defined by legislative, executive, fiscal and administrative arrangements. They define the scope and extent of the assignment of responsibilities to provinces and what has been retained by the center.

Table 2.1: Number of DS and GN Divisions in Anuradhapura District

Division	Sq. km.	GN Divisions	Villages
Padaviya	231	15	39
Kebithigollewa	560	26	90
Mahavilachchiya	635	17	112
Medawachchiya	507	37	112
Nuwaragam Palatha Central	378	40	165
Rambewa	255	38	142
Kahatagasdigiliya	331	40	127
Horowpothana	855	38	100
Galenbindunuwewa	277	41	157
Mihinthale	253	25	149
Nuwaragam Palatha East	106	29	72
Nachchadoowa	82	19	52
Nochchiyagama	869	36	111
Rajanganaya	89	21	34
Thambuttegama	112	26	62
Thalawa	247	39	121
Thirappane	308	41	105
Kekirawa	349	53	143
Palugaswewa	197	16	39
Ipalogama	134	32	116
Galnewa	145	30	85
Palagala	258	35	98
Total	**7179**	**694**	**2231**

Source: Department of Census and Statistics

The NCP is divided into two administrative districts, namely Anuradhapura and Polonnaruwa. In Anuradhapura district, there are 22 divisional secretariat divisions, 694 Grama Niladhari divisions, and 2231 villages. In Polonnaruwa district, there are 7 divisional secretariat divisions, 295 Grama Niladhari divisions, and 657 villages (See Table 2.1 and Table 2.2)

Table 2.2: Number of GN Divisions and Villages in Polonnaruwa District

Division	Sq. km.	GN Divisions	Villages
Thamankaduwa	445	55	125
Dimbulagala	578.9	56	97
Hingurakgoda	696	53	141
Medirigiriya	537	45	111
Welikanda	548	30	46
Elahera	349	28	88
Lankapura	184	28	49
Total	**3337.9**	**295**	**657**

Source: Department of Census and Statistics

2.3 Biophysical Environment

According to various chronicles, Anuradhapura is said to have become the capital of Sri Lanka in the 4th century BC. Sri Lankan history from the 4th century BC up to 10th century A.D is generally referred as Anuradhapura period. Introduction of Buddhism took place in reign of king Devanampiyathissa in 250-210 B. Most of the great reservoir tanks still survive today, and some may be the oldest surviving reservoirs in the world. The modern city (population 40,000) is a major road junction of northern Sri Lanka and lies along a railway line. The headquarters of the Archaeological Survey of Ceylon is in Anuradhapura. Today, the splendid sacred city of Anuradhapura, with its palaces, monasteries and monuments, draws many Buddhist pilgrims and visitors and a main tourist attraction.

The temperature in the Anuradhapura district is between 20°C to 30°C throughout the year. The warmest time of year is in April 29 °C on average, but could get up to 34 °C maximum. On the other hand, the coldest time of year is in January 25 °C on average, but could get down to 20°C minimum. The favorable weather along with ancient hydraulic civilization and various heritage sites has made Anuradhapura to be a main tourist destination in Sri Lanka.

Rainfall season is from October to April & May to September it is the dry season in Anuradhapura. It supplies larger portion of country's rice & vegetable production. Unlike

those days there are various jobs that people are involved and contribute in many ways to countries GDP.

Polonnaruwa district consists of an area of 3,403 km². It is situated in the dry zone plane towards the North East of the island. Polonnaruwa bears witness to several civilizations, notably that of the conquering Cholasand that of the Sinhalese kings during the 12th and 13th centuries. This immense capital created by king Parakramabahu I, in the 12th century, is one of history's most astonishing urban creations. The tooth relic of the Lord Buddha placed in the *Atadage* under Vijayabahu was considered as the foundation of the Sinhalese monarchy.

Polonnaruwa is the 2nd largest city in north central province. It is known as one of the cleaner and more beautiful cities in the country. The greenish environment, amazing ancient constructions, Parakrama Samudraya, and nice people with hospitality, always attracted local and foreign tourists. Historically Polonnaruwa had a tropical climate most of the year, although it was occasionally chilly in December and January. In recent years, the rain and chilliness has been increased noticeably.

2.4 Demography in the North Central Province

The NCP is one of the largest provinces in Sri Lanka, though the region is sparsely populated. The total population in Anuradhapura district was 875861 belonging to 238772 families (Table 2.3) in 2014. The largest portion of this population is from Sinhalese while Tamils, Muslims and other ethnicities also live in the district (Table 2.4). Average literacy rate is about 90% (Table 2.5).

Table 2.3– Population in Anuradhapura District

Name of the Division	Estimated	
	No. of families	Population
Padaviya	6 418	25317
Kebithigollewa	4954	21741
Mahavilachchiya	6173	22258
Medawachchiya	13494	48451
Nuwaragam Palatha Central	16557	57837

Name of the Division	Estimated	
	No. of families	Population
Rambewa	11727	38509
Kahatagasdigiliya	11346	42939
Horowpothana	9932	35376
Galenbindunuwewa	13951	52558
Mihinthale	8860	32494
Nuwaragam Palatha East	15273	67388
Nachchadoowa	7165	25464
Nochchiyagama	14471	49802
Rajanganaya	9436	36544
Thambuttegama	14147	49586
Thalawa	16094	57870
Thirappane	8088	25948
Kekirawa	15503	60324
Palugaswewa	4323	16059
Ipalogama	10660	35994
Galnewa	10304	36260
Palagala	9906	37142
Total	**238772**	**700257**

Source: Department of Census and Statistics

Table 2.4– Population Details by ethnicity in Anuradhapura District

Sinhala	Tamil	Indian Tamil	Muslim	Malay	Burgher	Other	Total
676073	5073	443	61989	279	179	1657	**745693**

Source: Dept. of Census and Statistics

Table 2.5- Percentage Distribution of Population (10 years and over) by Literacy and Sex in Anuradhapura District

Literacy	Total (%)	Sex	
		Male	Female
Literate	90.5%	92%	88.8%
Illiterate	9.5%	8%	11.2%
Total	100%	100%	100%

Source: Dept. of Census and Statistics

Table 2.6 – Population in Polonnaruwa District

DS Division	No. of Families	Population
Thamankaduwa	19244	85631
Dimbulagala	20265	89039
Hingurakgoda	17138	69176
Medirigiriya	16386	73129
Welikanda	9794	35976
Elahera	11536	44805
Lankapura	8540	39915
Total	**102903**	**437671**

Source: Dept. of Census and Statistics

Table 2.7 - Population According to Age in Polonnaruwa District

DS Division	Under 20 years	Over 20 years	Total population
Thamankaduwa	27463	47275	74739
Dimbulagala	32349	45365	77713
Hingurakgoda	21110	39268	60377
Medirigiriya	24625	39202	63827
Welikanda	13434	17967	31400
Elahera	14899	24207	39106
Lankapura	13747	21092	34838
Total	**147624**	**234375**	**382000**

Source: Dept. of Census and Statistics

Table 2.8 – Population Details by ethnicity Polonnaruwa District

Sinhala	Tamil	Indian Tamil	Muslim	Malay	Burgher	Other	Total
393532	8606	-	34460	28	34	11	**437671**

Source: Dept. of Census and Statistics

Table 2.9 - Percentage Distribution of Population (10 years and over) by Literacy and Sex in Polonnaruwa District

Literacy	Total %	Sex	
		Men	Female
Literate	90.0	91.2	88.7
Illiterate	10.0	8.8	11.3
Total	100	100	100

Source: Dept. of Census and Statistics

The NCP is currently home to a relatively educated population. Average years of schooling appear to be relatively high. The residential areas in the provinces are clustered as a result of planned irrigation drive agriculture and state sponsored settlement of farmers. The cities also are located in main divisional secretariat divisions. This makes the NCP a unique geographical and community base for positioning and developing skills training centers in the province.

2.5 Education Sector in NCP

The NCP being an irrigation driven agricultural district with relatively low level of poverty and diversity of population resulting from settlements created from migrants from all over the country provides relatively a better environment for persons to engage in education. However, dispersal of educational facilities including physical and human resources is not uniform. The province is often confronted with lack of qualified teachers for certain areas such as Mathematics, Science and English. There is also a general lack of required facilities for persons to follow science and mathematics streams in GCE (A/L).

Table 2.10: Total Number of Schools in the Province by Type

Type of School		Number of Schools
		798
National	National Schools	10
Provincial	Type 1AB schools	25
	Type 1C schools	158
	Type 2 schools	265
	Type 3 schools	340

Source: Provincial Department of Education, NCP

The NCP is home to **798** schools of which 10 are National Schools and the rest is Provincial Schools. There are about **778** schools in Anuradhapura district and there are **232** schools in 7 divisional secretariat divisions in the Polonnaruwa district. Most of the schools are type 2 and 3 schools while number of schools with GCE (A/L) Science and Mathematics streams is very small (See Tables 2.10, 2.11, 2.12).

Table 2.11 - Number of schools in Anuradhapura District

Type	Number of Schools
1AB	34
1C	158
2	332
3	254
Total	**778**

Source: Provincial Department of Education, NCP

Table 2.12 - Number of schools in Polonnaruwa District

Division	National schools	Grade 1 A&B	Grade 1 C	Grade 2	Grade 3	Total
Thamankaduwa	1	2	10	11	6	30
Dimbulagala	0	2	13	14	27	56
Hingurakgoda	2	2	2	20	6	32
Medirigiriya	1	0	7	12	12	32

Division	National schools	Grade 1 A&B	Grade 1 C	Grade 2	Grade 3	Total
Welikanda	0	0	4	8	25	37
Elahera	0	1	3	14	10	28
Lankapura	0	1	7	7	2	17
Total	**4**	**8**	**46**	**86**	**88**	**232**

Source: Provincial Department of Education, NCP

Table 2.13: Number of Schools with GCE (A/L) Technology Stream in NCP

Name of the School	Location	District
MaithreepalaSenanayake M. M. V.	Medawachchiya	Anuradhapura
Kebithigollewa M.M.V.	Kebithigollewa	Anuradhapura
Ruwanwali M.M.V.	Horowpothana	Anuradhapura
WalisingheHarischandra M.V.	Anuradhapura	Anuradhapura
VidyadarshaMahaVidyalaya	Nochchiyagama	Anuradhapura
ThabuttegamaM.M.V.	Thabuttegama	Anuradhapura
Thalawa M.V.	Thalawa	Anuradhapura
GalnewaM.M.V.	Galnewa	Anuradhapura
Ganthiriyagama Mahinda M.V	Ipalogama	Anuradhapura
Mihinthale M.V.	Mihinthale	Anuradhapura
SriRewathaNavodyaPasala	Madatuigama	Anuradhapura
Galkiriyagama C.C.	Galkiriyagama	Anuradhapura
LeelarathneWijesinghe M.V.	Hansayapaluwa	Anuradhapura
Eppawala Sri Siddhartha M.V.	Eppawala	Anuradhapura
Minneriya N.S.	Hingurakgoda	Polonnaruwa
Ananda Balika N.S	Kingurakgoda	Polonnaruwa
Medirigiriya N.S.	Medirigiriya	Polonnaruwa
Royal Central College	Polonnaruwa	Polonnaruwa
Palugasdamana M.V.	Palugasdamana	Polonnaruwa

Name of the School	Location	District
Vilayaya M.M.V	Aralaganvila	Polonnaruwa
BakamunaMahasen M.M.V.	Bakamuna	Polonnaruwa
Welikanda M.V	Welikanda	Polonnaruwa

Source: Ministry of Education

Table 2.13 provides data on the number of schools offering the GCE (A/L) in all districts in Sri Lanka. There are 14 schools in Anuradhapura district offering GCE (A/L) technology stream courses. These are scattered throughout the district making the access available to most students. There are 8 schools in Polonnaruwa districts offering GCE (A/L) technology stream courses. These are located in all three electorates in Polonnaruwa district. However, a lack of qualified teachers in schools is a main hindrance faced by the students who wish to follow this stream.

Table 2.14: Technology Streams Performance in GCE (A/L) Examination -2015

District	Number Sat	Percentage of Total Number of Students in Technology Streams in All Schools in Sri Lanka	Number of Students Pass	Pass Rate (%)
Ampara	354	2.78	154	43.50
Anuradhapura	**900**	**7.08**	**447**	49.67
Badulla	655	5.15	374	57.10
Baticoloa	345	2.71	150	43.48
Colombo	1219	9.60	709	58.16
Galle	658	5.18	327	49.70
Gampaha	871	6.85	481	55.22
Hambanthota	539	4.24	286	53.06
Jaffna	538	4.23	327	60.78
Kaluthara	491	3.86	287	58.45
Kandy	682	5.37	342	50.15

District	Number Sat	Percentage of Total Number of Students in Technology Streams in All Schools in Sri Lanka	Number of Students Pass	Pass Rate (%)
Kegalle	671	5.28	329	49.03
Killinochchi	84	0.66	38	45.24
Kurunegala	1071	8.43	585	54.62
Mannar	67	0.52	44	65.67
Mathale	373	2.93	231	61.93
Mathara	727	5.72	431	59.28
Monaragala	269	2.11	153	56.88
Mallative	60	0.47	33	55.00
Nuwaraeliya	394	3.10	166	42.13
Polonnaruwa	**340**	**2.67**	**172**	**50.59**
Puttalam	385	3.03	177	45.97
Ratnapura	701	5.52	476	67.90
Trincomalee	178	1.40	73	41.01
Vavunia	125	0.98	53	42.40
	12697		6845	43.50

Source: Department of Examinations, Ministry of Education

Total of 900 students have sat for the GCE (A/L) examination under technology stream in Anuradhapura district and 340 in Polonnaruwa district in 2015. Out of 900 students in Anuradhapura district 447 have passed the examination while out of 340 students in Polonnaruwa district 172 students have passed the examination. This indicates that a large percentage of students will be available to pursue courses in TVET institute in the two districts.

Though total of 12697 students have sat for the GCE (A/L) in technology streams in Sri Lanka in 2015, only 6845 students (43.50%) have passed the examination. The UGC expects to admit to the University system under technology stream about 2250 in 2015/2016 intake

(http://www.moe.gov.lk) to follow 28 courses in 13 state Universities. The government expected to establish 25 University colleges to serve the rest of the passed students which is yet to materialize. However, a total number of 10447 who sat for the A/L and 4595 students who have passed the examination will not be able to admit into a state University. The number of students who will enter the University system from each district is not yet announced so that according to approximate estimates.

It appears that most of the TVET institutes in the province are not yet ready to offer courses sought after by the GCE (A/L) technology stream students. The slow progress of establishing 25 University colleges will also seriously affect the training prospects of students. The Skills Development Assistants who are assisting the TVET institutes are of the opinion that sufficient number of courses are not available. In addition, due to financial difficulties most students are unable to follow available courses as they are available only in main district centers.

Entrants to the Labour Force after GCE (O/L) and GCE (A/L)

The data available in the Department of Education of the North Central Province indicate that there has been a steady growth of labour force in recent times. Tables 2.13 and 2.14 provides data on the number of students sat for the GCE (O/L) and GCE (A/L), number passed and the number entered the labour market in 2012. Since the data is not readily available for 23 and 2014 we use the average of the data from 2010 to 2012 to make predictions. Total number of 6136 persons entered the labour market after GCE (O/L) and 3205 persons entered the lanbour market after GCE (A/L). It is also evident that the number entered the labour market during the past few years after GCE (O/L) and GCE (A/L) has recorded a slight decline. Due to the nearly constant growth rate of population and the labour force during the past few years, labour force growth as a result of GCE (O/L) and GCE (A/L) appears to have been very steady and remain less the 1%.

Table 2.15: Performance at GCE (O/L) Examination – 2012

	Number Sat	Number of Students Passed 6 Subjects	Number Qualified for GCE(O/L)	Number Entered the Labour Market
Anuradhapura	11502	7931	7361	4141
Polonnaruwa	5035	3282	3040	1995
NCP	16537	11213	10401	6136

Source: Department of Education, NCP

Table 2.16: Performance at GCE (A/L) Examination – 2012

	Number Sat	Number of Students Passed 6 Subjects	Number Qualified for University	Number Entered the Labour Market
Anuradhapura	5345	3271	3258	2087
Polonnaruwa	2205	1087	1087	1118
NCP	7550	4358	4345	3205

Source: Department of Education, NCP

2.6 Forecasts of Labour Force

Growth rate of population in the NCP has been about 1% while the average growth rate of the number entered the labour market after GCE (O/L) and GCE (A/L) has been declining for the last few years as the performance of the GCE(O/L) has improved while the number entered the Universities has also been increasing. To maintain a feasible level of growth of labour market, we assume a 0.5% annual growth rate of labour market in making labour market predictions. As the initial level of labour force we used average of the number entered to the labour force from 2010 to 2012 data as 2013 and 2014 data was not available. Any deviations from these predictions would be attributed to reduction in the rate of growth of labour force during next five years.

We adopted statistical/econometric signaling approach for labour market forecast as the data availability limits us to employ any other complex econometric methods. The basic information on the method used are indicated in the table below:

Approach	Resources required	Benefits	Limitations
Econometric approach of Signaling	Basic statistical knowledge and access to time series data	Simple and relatively easy to undertake as well as to update the information and analysis	The analysis depends heavily on the quality of existing time series data

The relevant formulae are given below:

1. Predicted number entering the labourforce(NEFL)in 2015:

$$NEFL^{i}_{2015} = \{NEFL_{2010-2012}(1 + g_{LF})^{t+1}\}$$

2. Predicted number entering the labourforce in 2016:

$$NEFL^{i}_{2016} = \{NEFL_{2010-2012}(1 + g_{LF})^{t+2}\} - \{NEFL_{2010-2012}(1 + g_{LF})^{t+1}\} + \{NEFL_{2010-2012}\}$$

3. Predicted number entering the labourforce in 2017

$$NEFL^{i}_{2017} = \{NEFL_{2010-2012}(1 + g_{LF})^{t+3}\} - \{NEFL_{2010-2012}(1 + g_{LF})^{t+2}\} + \{NEFL_{2010-2012}\}$$

4. Predicted number entering the labour force in 2018

$$NEFL^{i}_{2018} = \{NEFL_{2010-2012}(1 + g_{LF})^{t+4}\} - \{NEFL_{2010-2012}(1 + g_{LF})^{t+3}\} + \{NEFL_{2010-2012}\}$$

5. Predicted number entering to the labour force in 2019

$$NEFL^{i}_{2019} = \{NEFL_{2010-2012}(1 + g_{LF})^{t+5}\} - \{NEFL_{2010-2012}(1 + g_{LF})^{t+4}\} + \{NEFL_{2010-2012}\}$$

6. Predicted number entering to the labour force in 2020

$$NEFL^{i}_{2020} = \{NEFL_{2010-2012}(1+g_{LF})^{t+6}\} - \{NEFL_{2010-2012}(1+g_{LF})^{t+5}\} + \{NEFL_{2010-2012}\}$$

Where:

NEFL = Number entering the labour force

g_{FL}= Rate of growth of labour force

$NEFL_{2010-2012}$ = Average of the number of persons entered the labour force from 2010 to 2012 in the North Central Province

t = 0 - 6, number of years

Assumptions used for the forecast are:

a. The labour force growth rate of the province will remain constant during 2015 to 2020
b. The labourforce exhibits an exponential growth
c. The population growth rate remains constant at the current rate during the next five years.
d. All those who fail GCE(O/L) or GCE (A/L) will be available to enter the labor force so that they will be the seekers of various courses available through the TVEC institutional network

Using the above equations, we computed the number that is expected to enter the labour force of the NCP after the GCE (O/L) and GCE (A/L) separately.

Table 2.17: Five Year Forecast of Entrants to the Labour Force after GCE (O/L)

District/Province	2015	2016	2017	2018	2019	2020
Anuradhapura	4348	4565	4793	5033	5285	5549
Polonnaruwa	2194	2304	2419	2540	2667	2800
Province	6542	6869	7212	7573	7952	8349

Table 2.18: Five Year Forecast of Entrants to the Labour Force after GCE (A/L)

District/Province	2015	2016	2017	2018	2019	2020
Anuradhapura	2191	2300	2415	2536	2663	2796
Polonnaruwa	1173	1232	1294	1358	1426	1498
Province	3364	3532	3709	3894	4089	4294

Table 2.19: Five Year Forecast of Total Number of Entrants to the Labour Force

Item	2015	2016	2017	2018	2019	2020
After GCE (O/L)	6748	7085	7440	7812	8202	8612
After GCE(A/L)	3365	3533	3710	3895	4090	4295
Total	10113	10619	11150	11707	12293	12907

Tables 2.18 to 2.19 give predicted data for the two districts and the province. During 2015 to 2020, an average of 11500 persons per year will enter the labour market after GCE (O/L) and GCE (A/L). These numbers will help us to make appropriate analysis on the future training supply and possible mismatches between demand and supply during the next five year period.

The potential demand for TVET course by the persons who would enter the labour market after GCE (O/L) and GCE (A/L) examinations need to be cautioned on the basis of number of factors. First, according to the current statistics, a larger percentage of those who failed to enter a University after GCE (A/L) register to pursue Bachelors' degree as external degree candidates in almost all state Universities. As of 2015, more than 50000 students have registered for external degrees in state Universities, and more ¾ of this number is for Arts stream degrees. A virtually unbreakable business including strong lobby groups have emerged in the system. The academia in the Universities appear to prefer to have large number of external degree students as it is financially beneficial to them. In recent times, the UGC has promoted formal linkages between the Universities and private tuition institutes which conduct classes for external degrees. The strong aspirations to be seek a office oriented public sector job has driven this demand. The TVET institutes have virtually been struggling to get sufficient number of students for courses as a result of undesirably higher number of external degree students. If the government wishes to promote vocational education in the country strict guidelines need to be enforced on the number of students that can be registered under external degrees. This requires inter-ministerial cooperation and collaboration at the higher level in a formal regulatory framework.

Second, mushrooming of various private Universities and private higher education providers have also affected the demand for training in TVET institutes. The leadership of the TVET institutes are of the opinion that they struggle to get sufficient number of students to vocational and technical education courses as the training seekers appear to prefer to obtain a training for them to be able to obtain office-oriented jobs in the future. The ability to enter into a Bachelor's programe even if somebody fails GCE (O/L) has driven this imbalance.

Third, most of the training providers are of the opinion that most students who failed GCE (A/L) or GCE (O/L) prefer to enter the labour market and find employment as unskilled workers due to financial difficulties they face. Since most industry sector employers willing to recruit unskilled labour due to the low wage costs, unskilled workers tend to be easily employed in most industries.

Fourth, the training providers are also of the opinion that three wheel taxi system has serious affected the demand for training in TVET institutes. Most male students who failed GCE (A/L) or GCE (O/L) have preferred to buy three wheelers, as there is easy financing, and employ as taxi services. The mushrooming of three wheeler industry bears witness to this. The training providers believe that imposing an age restriction on Three Wheeler Taxi operators might push the demand for TVET training upward.

Fifth, our surveys and discussions with public officials and training providers also indicated that demand for TVET training is less due to the fact that most male students seek employment overseas (South Korea, Middle East) etc., rather than being obtaining a training and become unemployed here. Various subsidies and promotional schemes for foreign employment have significantly contributed to this preference.

Sixth, social attitudes towards vocational qualifications is not favorable. Most female workers still prefer office-oriented occupations rather than field or plant related occupations after obtaining a TVET training. The parents also appear to push their sons and daughters to seek educational programmes rather than vocational and technical training.

Finally, TVET training in fulltime basis requires most students to financially stronger for financing the training. While financially stronger students prefer to follow courses in private Universities, while most financially weaker students prefer to follow external degree courses

as the classes are held during weekends so that they are able to employ as unskilled workers and pursue higher education.

The current fragmented and uncoordinated training systems in Higher Education and TVET, is extremely damaging the training profile of the country. The fact that a large number of Arts Graduates are unemployed and has become a serious burden to the state policy-markers have originated from the serious imbalance of higher education under different schemes. Up until, 2015, nearly 50% of the graduates in Sri Lanka were Arts graduates.

2.7 Summary

The chapter explained the trends, patterns and growth of socio-economic situation and labour force environment of the North Central Province. The most important highlight of the chapter is the predicted labour force growth during the next five years. The number entering the labour force of the NCP during the next five year period appears to be almost constant. The economy of the NCP should be able to create jobs and absorb this number entering the labour market. In order to provide skilled and semi-skilled occupations to the above labour force, growth of industries and accompanying growth of services sector will be required.

Chapter 03
Training Needs for Livelihood Occupations

3.1. Background

Microenterprises form an important and growing segment of regional economies. Microenterprises include diverse types of economic enterprises including street venders, carpenters, machine shop operators, and peasant farmers. They exist in businesses in many sizes. This diverse group requires a variety of support to grow and improve. Many of these men and women and their employees are poor and have limited access to services. But they do not lack potential. More than 50 percent of the businesses in Sri Lanka have 5 employees or less, and they account for as much as half of all employment (Central Bank of Sri Lanka, various years).

Microenterprises are the heart of the region's economy. The contribution of micro-enterprises to the economy is diverse, and appears to be very significant to the low income strata of the society. Microenterprises contribute significantly to economic growth, social stability and equity. The sector is one of the most important vehicles through which low-income people can escape poverty. With limited skills and education to compete for formal sector jobs, these men and women find economic opportunities in microenterprise as business owners and employees. Microenterprises are dominated basically by women employees. This sector helps women to work outside the home which is usually in addition to the care they provide for their families, which limits their business opportunities.

The ability to exploit the development potential of microenterprises appears to significantly depend on skills of the persons engaged in these occupations. Persons engaged in livelihood occupations appear to lack basic skills to advance their businesses to next levels through engaging in activities to enhance efficiency and productivity. One of the roles of the government institutions therefore is to provide skills development training to persons engaged in livelihood occupations. This section therefore attempts to understand the training needs of the persons engaged in livelihood occupations. The data obtained from case studies done in the province is analyzed to arrive at the conclusions and make recommendations on further training needs of the sector.

Methods Used in Analyzing of Training Needs of Livelihoods Occupations: Since a sampling frame is not available in the form of all livelihood occupations or micro-enterprises in the NCP, using any random sampling method was not possible. Therefore non random sampling method of "Convenient Sampling" was used for the case studies. 34 livelihood occupants from Anuradhapura district and 32 livelihood occupants from Polonnaruwa district were selected on field randomization method. The enumerators were employed to interview the individuals spreading in most divisional secretariat divisions of the NCP. From the case studies, case narratives were written. Adequate degree of randomness was maintained by using the technique of "Field Randomization" for the case studies.

Case narratives were analyzed using the "Content Analysis" method. Content analysis is a method for summarizing any form of content by counting various aspects of the content emanating from qualitative data. This enables a more objective evaluation than comparing content based on the impressions of a listener. Content analysis, though it often analyses written words, is a qualitative method helping to transform into quantitative data by evaluating the responses. The results of content analysis can therefore be converted into numbers and percentages. For instance, after doing a content analysis, one might make a statement such as "60% of livelihood occupants prefer specialized training in a chosen occupation" which is derived from the responses given by the respondents in the case studies. Though it may seem crude and simplistic to make such statements, the counting serves two purposes: to remove much of the subjectivity from summaries, and to simplify the detection of trends. The content that is analyzed can be in any form to begin with, but is often converted into written words before it is analyzed. The original source can be printed publications, broadcast programs, other recordings, the internet, or live situations, or written case narratives as of the present study. All this content is something that people have created. One cannot do content analysis of the weather - but if somebody writes a report predicting the weather, he/she can do a content analysis of that.

3.2. Livelihood Occupations in the Province

The main livelihood of the NCP is agriculture that includes paddy and *chena* cultivation. More than 60% of the NCP population is engaged in agriculture or related livelihoods. However, livelihoods in the formal and informal non-farm sector can also be seen. The formal sector includes a few large industries, retail and wholesale industry, transportation,

and public amenities. The employment in the formal non-farm sector is largely characterized by persons who have obtained tertiary and vocational education and training. This will be addressed in the demand analysis of the industry sectors for the technical and vocational education.

Non-farm livelihood occupations in the NCP are multi-faceted and diverse. They include both industrial and services sector occupations while the majority is in the services sector. The following categories of occupations dominate the livelihood occupations in the NCP which seemingly have some bearing on the future training needs. The details about different types off livelihood occupations available in the NCP have been documented in the Divineguma Programme of the Ministry of Economic Development. Occupations range from micro-enterprises in the agriculture to services mainly concentrating on the retail trade and manual work (Table 3.1). Most of these livelihood occupations are self-employment with very low technological skills and training. The occupations have emerged as survival strategies of the peasantry and are traditional in nature. Livelihood occupations have also emerged in response to niche markets created by growing industrial and services sectors. Agriculture related services have taken the lead in creating self-employment. There is a great potential in these economic activities in the NCP to generate a significant future industrial development process and to create semi-skilled and skilled employment for the persons who enter the labour market as educated individuals after GCE (O/L) or GCE (A/L) examinations.

Table 3.1: Livelihood Occupational Categories in Each Sub-sector of the NCP

	Sub-sector	Occupational categories
1	Agriculture and poultry	Poultry farmer, cattle and buffalo keeper, vegetable farmer, mushroom farmer, bee keeper
2	Food and beverages	Tea vendor, Fruit drinks maker and seller, water purifier and distributer, Sweet maker, curd maker, food processor,
3	Coconut-based	Coconut oil producer and seller, coconut-shell related ornaments producer, coconut-leaf related products, brooms producer and seller,
4	Handicraft	Agricultural tool and equipment producer and maintainer, household equipment and tools producer, handloom producer,

	Sub-sector	Occupational categories
		pottery producer, Cane-related goods producer,
5	Textile	Handloom producer,
6	Cement-based	Bricks maker, concrete related products,
7	Shoe and leather	Cobbler, Shoe maker, leather based products (bags etc),
8	Wood-based	Furniture maker, constructor of house roofs, windows and doors, wood based artistic equipment producer,
9	Paper-based	Exercise books maker, bags production, passbooks, receipt books producer,
10	Services	Fish seller, retailer, mobile vendor, gardener, fruit collector, masonry, carpentry, construction worker, construction helper, domestic helper, hospitality worker, advertising
11	Micro-scale agricultural products	Vegetable farmer, Fruit grower,
12	Inland fishing	Fisherman, Fish seller
13	Livestock and poultry	Housing systems; Feeds and feeding strategies; diseases/parasites prevention and control; Daily and special routine operations;
14	Gardening	Horticulturist; Conservationist; Floriculturist, Landscaper; Nursery keeper; Curator
15	Miscellaneous	Ornamental fish keeper,

Source: Information Available on Divineguma programme

In order to obtain the perspectives and training needs of the livelihood occupations in the NCP, we conducted case studies covering 34 persons from Anuradhaoura district and 32 persons from Polonnaruwa district of the NCP. The results of the case studies are discussed in the following sections. We discuss this considering a few aspects including: occupants' perspectives on existing training needs, training requirements, training duration, issues and challenges for developing and implementing training progreammes for livelihood occupations.

3.3. Problems Faced by Livelihood Occupants

Analyzing the cases studies in the NCP, we were able to identify a number of problems and issues faced by livelihood occupants. Table 3.2 and 3.3 summarize the information provided by respondents on the current business problems they face in order to get their business developed. As it indicates, most problems are economic in nature. But some issues raised by the livelihood occupants are related to training provision. The problems highlighted by the livelihood occupants in both districts of the NCP can be summarized as following:

a. A lack of relevant modern equipment
b. A lack of access to raw materials
c. Shortage of advanced technical training
d. Difficulty in obtaining existing training as the programmes schedules are very rigid and time consuming.
e. A lack of know how related to most occupations
f. A lack of training on entrepreneurship
g. A lack of proper extension services and appropriate expert service
h. Shortage of financial capital and access to banks. High interest rates and collateral requirements hinder borrowing, and
i. A lack of timely information on markets

Any future plan of action to develop the livelihood occupations and industry in the NCP and training supply need to address these problems.

Table 3.2: Problems Faced by Livelihood Occupants in the Anuradhapura District

	Name	Occupation/Products	Problems Faced
1	Hemamali	Producing cement bricks	Water shortage, lack of modern equipment
2	Gunasena	Furniture making	Lack of access of quality woods Lack of modern equipment
3	Nisansala	Milk production	Finding animal feeds, difficult to buy high breeding animals

	Name	Occupation/Products	Problems Faced
4	Varusuth	Welding	Difficulty in buying modern equipment
5	Madhubashini	Producing flower plots	Lack of access to raw materials
6	Kusumalatha	Tailoring	Lack of access to a business premise
7	Somapala	Tailoring	Difficulty in buying modern equipment
8	Lasantha	Plant nursery	Disease control methods, access to markets
9	Mallika	Milk production	Lack of access to grass and pastures
10	Kumara	Hair cut	Business development
11	Handapangoda	Cement bricks production	Lack of access to water and sand, difficulty in buying modern equipment
12	Ariyadasa	Poultry	Housing and feeding methods
13	Karunarathna	Brick production	Lack of access to water and clay
14	Dhanapala	Milk production	High yielding animals, difficulty in getting veterinary services in time
15	Kumara	Milk production	Finding animal food, difficulty in finding calves
16	Madhusanka	Furniture production	Difficulty in buying modern equipment
17	Shalika	Beauty salon	Borrowing difficulties, lack of access to a business premise, lack of government support
18	Lalanthi	Tailoring	Borrowing difficulties, lack of access to modern equipment, difficulty in buying raw materials
19	Premasiri	Furniture	Lack of access to modern equipment, lack of access to raw material, transport problems
20	Thilakarathna	Brick production	Lack of access to water, lack of access to clay

	Name	Occupation/Products	Problems Faced
21	Chandrasiri	Poultry farming	Difficulty in finding animal food, borrowing difficulties
22	Abeyratna	Glass cutting	Transport and borrowing problems
23	Padmasiri	Ornamental fish keeping	Lack of access to fish varieties
24	Somasiri	Poultry farming	Lack of access to modern housing, price fluctuations of animal food
25	Sarath	Poultry farming	Difficulty in finding animal food, borrowing difficulties
26	Sisira	Furniture production	Lack of access to new equipment and equipment
27	Indrani	Plant nursery	Farm houses
28	Munasinghe	Iron work	New equipment, raw material
29	Priyantha	Furniture production	Difficulty in buying modern equipment, raw material, and transport
30	Rathnayake	Cement brick production	Raw material, borrowing problems,
31	Carolis	Furniture production	Difficult to buy modern equipment, lack of training on modern equipment
32	Gunaratna	Mason	Lack of training on tiling
33	Seneviratna	Beauty salon	Lack of business premise, rentals are high, difficulty in borrowing, lack of government support
34	Gunasena	Furniture production	Lack of access to woods, modern equipment

Table 3.3: Problems Faced by Livelihood Occupants in the Polonnaruwa District

	Name	Occupation	Problems
1	Silva	Fish selling	Borrowing difficulties
2	Kumari	Fast food making	Access to market, business premise
3	Jayalath	Production of Yoghurt and ice packet making machines	Marketing problems, lack of government support
4	Priyankara	Retailing	Inventory control, business management

	Name	Occupation	Problems
5	Chandrakanthi	Tailoring	Difficulty in finding raw material
6	Gunasekara	Tailoring	Lack of market access
7	Priyanthi	Milk production	Lack of a business premise
8	Thilakaratne	Animal husbandry	Lack of access to pasture, lack of employees
9	Herath	Traditional poultry farming	Fluctuation of prices
10	Indralatha	Plant nursery	Politicization of training programmes, lack of transport facilitates,
11	Premasinghe	Fish selling	Financing problems,, lack of business premise, technical training
12	Rupasingh	Vegetable plant nursery	Congested business premise, lack of technical; knowhow
13	Hemalatha	Beverage making and selling	Lack of publicity on the tourist destination
14	Rathnayake	Rice and grain mill	Lack of equipment, lack of finance
15	Banda	Concrete ornamental goods making	Raw material, high competition
16	Wickrema	Plant nursery	Marketing, politicization of government programmes
17	Wijeratna	Mobile Fish selling	Difficulty in buying a motor bike
18	Nimal	Maize selling	Maize farming knowhow
19	Gnanawathi	Stick making	Difficult to obtain raw material, lack of market access
20	Ariyawathi	Diary farming, poultry	Lack of access to pasture
21	Senaratne	House planning	Lack of further training
22	Dishan	Ornamental fish selling	Lack of skills, lack of required tanks, and food
23	Renuka	Food processing	Lack of knowledge and skills
24	Priyantha	Sea fish seller	Lack of access to finance, borrowing and higher taxes
25	Seneviratne	Drinking water processing and distribution	Lack of market access

	Name	Occupation	Problems
26	Abesinghe	Curd making	Preservation methods, difficulty in finding pottery during rainy season, market access, lack of machinery
27	Jayathilake	Organic fertilizer production	Lack of marketing, advertising, government support, and access to markets
28	Bandusena	Curd making	Preservation methods, difficulty in finding pottery during rainy season, market access, lack of machinery
29	Arunashantha	Food processing	Lack of finance, access to water, business premise
30	Indika	Food processing	Lack of finance, access to water, business premise
31	Darmabandu	Cane related products	Lack of stable price, market access and financial problems
32	Nuwan	Tailoring	Financial access

3.4. Training Obtained by Livelihood Occupants

Tables 3.4 and 3.5 indicates the training needs of various livelihood occupants. Livelihood occupations in the country have undergone a series of training programmes under the Divineguma programme implemented by the government under the Economic Development ministry. The following stylized facts can be observed with respect to training obtained by the livelihood occupants:

a. Most livelihood occupants have obtained informal training as on-the-job
b. Most training programmes are very short term in nature
c. The training obtained appear to contain only the aspects on awareness and knowledge, rather than imparting skills
d. Specific technical training is lacking
e. Those who have obtained short term training programmes from TVEC institutions have also chosen to engage in livelihood occupations.
f. Most livelihood occupants are engaged in these occupations as a way of survival rather than sustainable future growth enterprise

Table 3.4: Training Already Obtained by the Livelihood Occupants of the Anuradhapura District

Name	Nature of the Training/Institute	Duration
Hemamali	Workshop	1 day
Gunasena	Technical college	6 months
Kusumalatha	Tailoring	6 months
Somapala	NAITA	1 year
Kumara	Barber	6 months
Handapangoda	Workshop	2 days
Nisansala	Vocational training	1 year
Senevirathna	NVQ – bridal, cake making	1 year
Lalanthi	NAITA	1 and ½ years
Munasinghe	Vocational training	6 months
Jayasena	Beautician	5 months
Priyantha	Technical college	10 months
Karolis	Vocational training	6 months
Seneviratna	Cake making, bridal, beautician, NYSC	1 year
Gunasena	Technical college	6 months

Table 3.5: Training Obtained by the Livelihood Occupants of the Polonnaruwa District

Name	Nature of Training	Duration
Silva	Informal training	-
Kumari	Informal training	-
Jayalath	Industrial training	2 years
Priyankara	Informal training	-
Chandrakanthi	Informal training on tailoring	-
Gunasekara	NVQ-Level 4 beautician	6 months
Priyanthi	Informal training	-
Thilakaratna	Training by Milk Board	1 year
Herath	Informal	-
Herath	Informal	-
Premasinghe	Informal training on Food processing	-
Rupasinghe	Informal training	-

Name	Nature of Training	Duration
Hemalatha	Informal training	-
Rathnayaka	Informal training	-
Thilakaratna Banda	Technical college	3 months
Gnanawathi	Samurdhiprogramme livelihood training	2 days
Ariyawathi	Informal training	-
Senaratna	Draftsman, NCT Auto Cad	1 year 3 year 6 months
Abeysinghe	Technical college	-
Jayathilaka	Agricultural training in military	-
Darmabandu	Fashion designing by Divisional Secretariat	3 months
Nuwan	Tailoring course taught by wife	-

We have also documented in Table 3.6, information about various training programmes conducted by the Divineguma Programme of the Ministry of Economic Development. The Divineguma Programme has conducted a large number of training programmes targeting the livelihood occupants in a number of sub-sectors, including food and beverage, handicraft, electrical, chemical usage and processing, cement related products, wood related products, coconut products, Kithul and Palmyra products, textile and apparel, garments, shoe and leather, paper based products, and various services. Divineguma Programme has conducted a total of 595 training programmes in Anuradhapura district and 696 programmes in Polonnaruwa district covering all sub-sectors listed above (Table 3.6).

Table 3.6: Training Provided under Divineguma Programme to Livelihood Occupants in Sri Lanka by Industry Category

Divi-Neguma National Program on Cottage Industry

Progress of District Technology Transfer and Training Programs (Sector wise)

#	District	Number of Beneficiaries Trained													
		F&B	Handi.	Elect.	Chem.	Cement	Wood	Coco.	K&P	T&A	Garm.	S&L	Paper	Serv.	Misce.
1	Colombo	187	13	8	90	12	-	5	-	31	36	22	8	192	-
2	Anuradhapura	156	69	9	66	11	39	-	12	15	85	28	40	58	7
3	Kegalle	260	88	4	88	21	149	12	-	60	142	20	56	502	-
4	Gampaha	241	112	18	89	15	41	-	-	113	24	59	25	438	14
5	Jaffna	159	88	-	10	1	83	10	143	248	55	-	-	309	11
6	Moneragala	90	38	6	12	6	19	-	-	2	1	18	23	172	3
7	Puttlam	76	38	15	4	5	3	-	46	7	24	37	28	69	-
8	Mannar	211	25	9	8	16	99	-	50	179	73	1	-	358	20
9	Kandy	223	71	8	47	7	36	-	-	19	93	41	49	53	19
10	Ratnapura	324	45	15	26	9	38	-	-	6	233	29	63	84	2
11	Hambanthota	342	514	11	24	4	62	-	74	18	356	32	49	72	3
12	Matale	273	33	10	60	2	39	18	-	9	46	-	26	49	7
13	Badulla	320	24	1	96	14	72	36	-	15	64	3	61	136	1
14	Killinochchi	45	15	-	-	40	-	-	88	66	-	-	34	20	-
15	Mullaithivu	130	18	-	92	8	3	-	49	6	-	24	51	1	-
16	Polonnaruwa	116	26	19	85	9	85	-	-	12	218	2	2	96	6
17	Batticaloa	129	1	-	64	-	24	6	240	-	214	-	-	30	-
18	Galle	119	149	-	79	3	202	41	-	63	339	-	1	177	14
19	Vavuniya	10	-	-	5	16	-	3	63	7	-	-	1	102	2
20	Trincomalee	140	-	-	2	16	-	-	37	14	-	-	-	-	1
21	Nuwara-Eliya	26	-	-	126	9	-	-	-	8	-	1	-	101	8
22	Kalutara	245	10	6	71	12	38	-	1	18	4	-	-	-	13
23	Kurunegala	306	-	1	178	5	-	-	-	13	-	1	-	-	1
24	Matara	340	-	-	208	-	58	70	-	20	-	-	-	-	-
Total		**4468**	**1377**	**140**	**1530**	**241**	**1090**	**201**	**803**	**943**	**2007**	**318**	**517**	**3019**	**132**
Grand Total															**16786**

F&B – Food and Beverages **Handi.–** Handicrafts **Elect. –** Electronics **Chem. –** Chemical based **Cement –** Cement based **Wood –** Wood based
Coco.- Coconut based **K&P –** Kithul and Palmyrah **T&A –** Textile and Apparel **Garm. –** Garments **S&L –** Shoe and Leather **Paper –** Paper based
Serv. – Services **Misce.** - Miscellaneous

Table 3.7 documents the institutions which were involved in various training programmes for livelihood occupants including Industrial Development Board, Vidhatha Resource Center, National Enterprise Development Agency, National Craft Council, National Design Center, Small Enterprise Development Division, Industrial Technology Institute, Arthur C Clerk Center, Textile Department, Palmyra Development Board, Sri Lanka Institute of Textile and Apparel, National Engineering and Research Development Center, and Coconut Development Authority. If the TVEC is planning to provide training programmes to the livelihood occupants, it is highly advisable that they do it through these institutes which tend to possess the relevant expertise and know how to conduct specialized training programmes.

Table 3.7: Training Provided under Divineguma Programme to Livelihood Occupants in Sri Lanka by Training Providers

Divi-Neguma National Program on Cottage Industry

Progress of District Technology Transfer and Training Programs (Institution wise)

#	District	Number of Beneficiaries Trained													
		IDB	VIDATHA	NEDA	NCC	SEDD	NDC	ITI	NERD	PDB	SLITA	Textile	ACCC	CDA	Total
1	Colombo	117	86	52	47	142	4	31	115	-	-	2	8	-	604
2	Anuradhapura	241	95	9	119	28	21	29	24	12	-	8	9	-	595
3	Jaffna	239	46	19	201	252	77	57	1	123	92	-	-	10	1117
4	Kegalle	652	217	125	111	157	15	26	22	-	61	-	4	12	1402
5	Gampaha	424	145	22	156	211	30	46	59	-	46	32	18	-	1189
6	Moneragala	136	54	5	55	87	12	22	12	-	-	1	6	-	390
7	Puttlam	149	15	16	45	29	01	14	15	46	-	7	15	-	352
8	Mannar	176	42	99	50	187	91	95	16	30	263	-	-	-	1049
9	Kandy	133	226	88	131	30	18	13	19	-	-	3	5	-	666
10	Ratnapura	316	147	183	73	74	38	10	13	-	-	5	15	-	874
11	Polonnaruwa	-	94	212	95	86	75	17	67	-	-	11	19	-	676
12	Hambanthota	185	196	357	494	72	57	117	19	35	-	18	11	-	1561
13	Badulla	369	77	101	53	91	70	15	16	-	-	15	-	36	843
14	Matale	100	137	115	80	44	35	18	14	-	-	4	7	18	572
15	Killinochchi	89	-	-	51	-	-	-	59	83	-	20	-	-	302
16	Galle	-	96	384	193	155	202	67	22	-	16	11	-	41	1187
17	Mullaithivu	177	-	75	24	-	-	37	15	48	-	6	-	-	382
18	Vavuniya	-	9	-	35	67	-	8	20	63	-	7	-	-	209
19	Batticaloa	-	136	214	40	-	23	42	7	240	-	-	-	6	708
20	Nuwara-Eliya	-	31	106	-	122	-	-	12	-	-	8	-	-	279
21	Trincomalee	-	27	-	-	-	-	-	132	37	-	14	-	-	210
22	Kalutara	-	238	-	-	-	38	-	15	-	117	10	-	-	418
23	Kurunegala	-	48	262	-	89	-	60	35	-	-	11	-	-	505
24	Matara	-	184	315	-	64	58	-	20	-	-	20	-	35	696
	Total	**3503**	**2346**	**2759**	**2053**	**1987**	**865**	**724**	**749**	**717**	**595**	**213**	**117**	**158**	**16786**

IDB – Industrial Development Board
SEDD -Small Enterprises Development Division
PDB- Palmyrah Development Board
CDA - Coconut Development Authority
NEDA- National Enterprise Development Authority
ITI- Industrial Technology Institute
SLITA-Sri Lanka Institute of Textile Apparel
VIDATHA – VIDATHA Research Centre
NCC- National Crafts Council
ACCC- Arthur C. Clerk Centre
NERD- National Engineering and Research Development Centre
NDC- National Design Centre
Textile – Textile Department

Table 3.8 documents the further training needs of the livelihood occupants with respect to each occupational category as arisen from the case studies. Almost all livelihood occupants of both the districts, who were interviewed in the case studies, expressed that they required specialized skilled oriented training in their respective areas. This infers that almost all livelihood occupants who have obtained training under various government programmes believe that they require specific skills oriented training.

Table 3.8: Number of Individuals with Training Needs in Two Districts of the North Central Province

Occupational Category	Training Area/Skills Expected
Food and beverage	Food and beverage processing, packaging, preserving, safety and health matters
Handicraft	Art and craft practices, design and technology, development of new products, marketing
Electronics	Maintenance, repair,
Chemical based	Processing, product development, marketing,
Cement based	Mixing, molding, design, product development, business

Occupational Category	Training Area/Skills Expected
	development
Wood based	Professional Management Development, Timber Processing and Finishing Technology, Furniture Design Making
Coconut based	-
Kithul and Palmyra	Treacle and jaggery preparation, packaging, preserving, health aspects,
Textile	Design, Tailoring, product development,
Garment	Machine operating, designs, measurement and cutting, quality control
Shoe and leather	Product design,
Paper based	Manufacturing of products,
Services	Customized training on each kind of service
Micro-scale agricultural products	Sustainable farming methods/practices; Production of organic fertilizer; Post-harvest technology for small farmers; Waste management; Diseases/parasites prevention and controls;
Inland fishing	Fishing technology; Storage of fish; Cleaning and processing of fish; Equipment maintenance;
Livestock and poultry	Housing systems; Feeds and feeding strategies; diseases/parasites prevention and control; Daily and special routine operations;
Gardening	Horticulture technology; Conservation & Land Management; Arboriculture technology; Floriculture technology, Landscaping; Nursery maintenance; Maintenance of parks/gardens

Source: Case Studies

As we have observed through the case study interviews conducted in Anuradhapura and Polonnaruwa districts, certain challenges and issues need to be tackled in planning of training of livelihood occupants due to a number of reasons. Persons engaged in livelihood occupations come from various socio economic backgrounds and educational levels. They also appear to have diverse training needs. While there are certain generic training needs, customized training provision is seemingly required for different livelihood occupations. Training provision needs to take into account of the following issues and challenges.

a. Since most of the training programmes conducted for the livelihood occupants by various government institutions are fundamentally awareness raising and knowledge dissemination type, and not of skills imparting, the livelihood occupants who were interviewed in the cases studies were of the view that they require specific occupational/product/service specific advance skills to undertake and improve livelihood occupations. This indicates that the training programmes needs to include a higher percentage of practical skills rather than lectures and speeches.
b. It was also indicated that livelihood occupants require assistance from the government for obtaining market access, product promotion, favourable tax regimes, and convenient regulatory structures. Training is required on these aspects also.
c. Socio-economic environment of the trainees needs to be clearly understood and treated as required. It appears that a diagnostic or analytical tool is required to identify the levels of training. Places people/households at the centre, identifies pathways and blockages. The training programmes should integrate sectoral concerns with wider development initiatives are required.
d. Diversity of occupations has to be embedded. A simple skills "deficit" approach for training will not work. One needs to start with the know-how that people have, and build further skills into it. Training programmes should recognise that rural 'vocations' often consist of many livelihood components. Sustainable rural livelihoods often involve a combination of indigenous and modern skills.
e. Most prospective trainees appear to prefer very short period training, mostly of one day duration. This might be a serious hindrance to implement effective and meaningful training programmes to generate adequate skills transfer. Planning of training programmes may take this into consideration.

3.5. Summary and Recommendations

Based on our field observations, following specific recommendations are made for consideration:

a. Trainees view that the existing training programmes are largely awareness level programmes, and that skill development training programmes are required.
b. Training programmes should be customized in consistent with the needs of different industrial categories
c. Formal training programmes involving experts in the respective fields are required as

current training programmes are highly generic in nature. This might require experts in diverse fields.

d. A system of lifelong learning with practical applications has to be planned and implemented for persons engaged in livelihood occupations
e. Most trainees prefer field based skill development training conducted at their respective business places.
f. Training programmes should be focused more on practical training programmes.
g. Occupational categorization and standardization system might also accompany the training programmes.
h. Skills oriented/technical training should be provided
i. Staggered training programmes might be implemented as most prospective trainees are not willing to spend a longer period of ongoing training and continuous basis.

Chapter 04

Current and Predicted Human Resource Requirement in the Industry Sectors

4.1. Overview of Industry Trends

The North Central Province is highly dominated by paddy cultivation followed by livelihood occupations. The existence of non-farm economic activities is rare to a great extent. However, the region is known for heritage based tourism so that a significant presence of lodging places can be identified. Moreover, the services sector is dominated by construction, retail and wholesale trading, banking and finance, sanitation, and vehicle maintenance. The manufacturing sector is largely confined to small and medium enterprises. For identifying the main industry sectors in the province, we looked at the composition of economic activities and the current growth trends.

The NCP is the largest province in Sri Lanka in terms of total land area. Explaining the sectoral composition of the economy of the North Central Province helps to understand the main sectors which would have a significant demand for persons who have obtained training in TVET institutions. The NCP is one of the weakest economies in the entire provinces in the country according to its contribution to Gross Domestic Product (GDP) in Sri Lanka, In 2014, NCP's contribution to GDP is only 5.1% while the contribution of Western province was 42%. The contribution to national GDP in all other provinces except Uva and Northern provinces were higher than that of the NCP (Table 4.1.). The weak economy in the NCP indicates that it has a very minimum ability to absorb labour compared to most provinces in the country. The current and future employment profile in the NCP depends on the relative economic strength of the province.

According to the sectoral structure of the economy in the NCP, agricultural sector has contributed by 13.8% to provincial GDP, while the industry and services sectors' contributions were 21.3% and 64.8% respectively (Table 4.2). Any attempt to understand the employment potential of the province has to take in to account of these facts. The data infers that the services sector has the highest potential to absorb labour while the industry sector has the next potential. Sectoral labour absorption strength of NCP is also important.

Table 4.1. Provincial Share of GDP in Sri Lanka in 2014

Province	Percentage of total GDP in Sri Lanka (%)
Western	42.0
Southern	10.8
North Western	10.7
Central	10.4
Sabaragamuwa	6.7
Eastern	5.8
North Central	5.1
Uva	5.0
Northern	3.6

Source: www.cbsl.gov.lk, 2015

Table 4.2. Sectoral Contribution to Provincial GDP in NCP in 2014

Sector	Percentage of total provincial GDP (%)
Agriculture	13.8
Industry	21.3
Services	64.8

Source: www.cbsl.gov.lk, 2015

First, agriculture sector in NCP is not structured or evolved to attract skill labour trained in TVET institutions, as there is hardly any demand for NVQ trained persons in the agricultural sector in NCP. Majority of the population in the NCP depends on agriculture as their main source of income. Paddy is the most popular crop among the farmers, while other crops cultivated include maize, finger millet, soybean, brinjal, hot pepper, banana, pumpkin, etc. Simple machinery and equipment are used in the production process (Table 4.3). These activities can generally be classified under livelihood occupations.

Table 4.3. Provincial GDP by Industry Origin in 2011-2012 in Agricultural Sector in NCP (In Rs Millions)

Sub-sector	2011	2012
Tea	-	-
Rubber	-	-
Coconut	3435	4392
Minor Export Crops	4	5
Paddy	25167	27547
Livestock	5621	6067
Other Food Crops	22258	24025
Plantation	220	354
Firewood and forestry	5261	7086
Other agricultural crops	2128	2120
Fishing	3775	4212
Total in Agricultural sector	70248	73428

Source: www.cbsl.gov.lk, 2014

Second the industrial Sector in NCP is highly dominated by the micro and small enterprises. There are only about 45 medium and large enterprises in the entire NCP. This is only 1.7% of total industrial establishments in the country (Table 4.4). It is also clear that manufacturing and construction industries have shown consistent growth in the recent past in the NCP (Table 4.5). These sector tend to have the potential to absorb skill labour. The NCP consists of a very weak industrial sector indicating that the sector's ability to absorb skill labour is very small and it is especially so for new employment. Moreover, the cottage industry, electricity gas and water and construction are the leading sector. While the construction sector has the potential to attract NVQ trained persons, the cottage industry depends in informal labour to a great extent (Table 4.6). Electricity, gas and water tend to have national recruitments indicating that there is no guarantee that most provincial unemployed persons will get employment in these institutions.

Table 4.4. Distribution of Industrial Establishments by Province (2012)

Province	Number of Medium and Large Scale Establishments	Percentage of Total (%)
Western	1405	54.2
Southern	304	11.7
Central	269	10.4
Sabaragamuwa	266	10.3
North Western	208	8.0
Uva	68	2.6
North Central	45	1.7
Northern	18	0.7
Eastern	11	0.4
Total	**2593**	**100**

Source: Department of Census and Statistics, 2013, Annual Survey of Industries.

Table 4.5. Provincial GDP by Industry Origin in 2011-2012 in Industrial Sector in NCP (In Rs Millions)

Sub-sector	2011	2012
Mining and Quarrying	15074	9370
Manufacturing	32399	37841
- Processing	395	638
- Factory industry	2581	3548
- Cottage industry	6191	6655
Electricity, Gas and Water	3754	6651
Construction	22786	34236
Total in industry sector	**74013**	**88058**

Source: www.cbsl.gov.lk, 2014

Third, in the services sector, hospitality and tourism sector, transport and communication, banking, insurance and real estate have shown a significant growth in NCP (Table 4.1f). Services Sector in NCP (trading, vehicle services, transport services, healthcare services, and personal sanitation services). In some sectors, recruitment for employment is not necessarily

from the province such as banking, insurance and real estate as most of the establishments have national recruitments. Therefore, mere existence of establishments does not guarantee that the persons from the province will get employment in these institutions.

Table 4.6. Provincial GDP by Industry Origin in 2011-2012 in Services Sector in NCP (In Rs Millions)

Sub-sector	2011	2012
Wholesale and retail trade	53230	58638
Hotels and Restaurants	1618	2056
Transport and communications	46683	54945
Banking, Insurance and Real Estate	22510	32174
Ownership of dwellings	7774	8954
Government services	22469	27109
Private services	7432	8832
Total in the Services Sector	**161,714**	**192,707**

Source: www.cbsl.gov.lk, 2014

The NCP of Sri Lanka has also consistently shown high percentage of persons for foreign employment. For instance, while 293,105 persons have gone for foreign employment in 2013 in Sri Lanka, the total number of persons who have departed for foreign employment from NCP was 14,264 (Table 4.7). This is 4.9% of total number departed for foreign employment from Sri Lanka. It is also notable that this nearly half of the total number of persons entered the labour market in the NCP in that year. The fact that a large number of persons leaving for foreign employment indicate the lack of employment opportunities available in the province in addition to low preference for whatever the employment available. The apparent informality, uncertainty and temporary nature of available and growing employment makes compels most job seekers to either migrate to the Western province of the country or other countries. This data indicates that not only does most new entrants to the labour market leave for foreign employment, most of the existing employees also appear to leave for foreign employment from the NCP.

Table 4.7: Departure of Number of Persons for Foreign Employment in 2013

Category	North Central Province	Total in Sri Lanka
Male	5,609	175,047
Female	8,655	118,058
Total	**14,264**	**293,105**

Source: www.cbsl.gov.lk, 2014

Based on the above discussion, this study identified manufacturing and construction sector, hospitality and tourism sector and other services sector (trading, vehicle services, transport services, healthcare services, and personal sanitation services) as the leading sectors which have the potential to absorb persons trained in TVET institutes as new workers in addition to their current workforce. The fact that each occupation was considered rather than the sectoral forecast was due to the fact that TVEC emphasized the need to identify current and future employment with respect to each occupation as it will assist the TVET institutes to plan their training programmes.

The Population and the Sample

The total number of business enterprises in the private and informal sectors of the two districts and the NCP were the focused population of the survey. We used the database of the Employee Trust Fund Board in Regional Office in the NCP as the population of the total business establishments of the NCP. All the institutions which hire employees are required to pay Employee Trust Fund to most employees, and in the private sector, it is for all employees. Therefore, the Employee Trust Fund possesses information about total number of private sector establishments which hire workers on permanent, temporary or casual basis, the law requires that all institutions which hire workers must pay the institutional share of the ETF to the Employee Trust Fund by the institution itself. It is unlawful for any institution to hiring workers without paying ETF. Therefore, almost all institutions which hire workers are included in the list of institutions available in the data base of the Office of the ETF. This database include data on number of business establishments, their locations, nature of business/activity, and number of employees. This data set is a very useful data set to be used as the total population of business enterprises existing in a district or a province. We obtained details about total business establishments, number of workers in each establishments, official address of each establishment and the type of business. This information was used as

the population of the study. There is no any other secondary source which can provide a comprehensive data set as this is. We were also able to classify number of persons in each occupation based on this data set.

According to the information obtained from the Regional Office of the Employee Trust Fund Board of the North Central Province, there were 2528 business establishments in the province. Our focus was to attempt to collect data from the total population of business enterprises as a sample will not provide a useful data for predicting future employment of two districts. Therefore, we used all business establishments that are expected to use semi-skilled and skilled manpower in the province. From the total number of business enterprises, we excluded most establishments in retail and wholesale sector as the use of skilled and semi-skilled manpower, which will be trained by the TVEC institutes, are not significant in these sectors. There were 2369 total businesses in NCP. Out of this, Small and Medium Scale Enterprises (SMEs) make up a large part of economy, accounting for 80% of all businesses (http://www.nhrep.gov.lk/) operating as own account workers or retails shops, or microenterprises and small enterprises where there is no demand for skills workers trained by the TVEC institutes. Most of these enterprises prefer to use unskilled or daily paid labour. These institutes use either unskilled labour or those who have been trained informally. Therefore, out of 2369 business, 1896 SME enterprises were removed from consideration due to the fact that they do not employ skilled workers, and 473 business enterprises in manufacturing, hotels and services were considered as the total population of businesses. A total 400 business enterprises were included in the sample in NCP in the three sectors as the other 73 businesses were not surveyed due to the non-availability of the business addresses. In addition to the survey, we also obtain labour demand data from Chambers of Commerce and Industry such as Construction Association of the North Central Province.

Table 4.8: Details of the Sample

	Category	Number of Establishments Surveyed	As a percentage of total number of establishments in the province
1	Manufacturing sector	74	10%
2	Hospitality and tourism sector	40	19%

	Category	Number of Establishments Surveyed	As a percentage of total number of establishments in the province
3	Other Services sector	287	71%
4	Total number of establishments surveyed	400	100%

Sources: Data provided by the Regional Office of the Employee Trust Fund, 2013.

This sample falls under the category of a 'large sample' by any statistical standard. The fact that the sample size is adequately large ensures that the resulting analysis, conclusions, and recommendations tend to be highly valid and reliable. All business establishments that can be included in manufacturing, hospitality and tourism, and services were included in the sample. Therefore, we have surveyed the total population of business establishments that fall under any of the above three sub sectors subject to $\pm 10\%$ errors or omissions.

The Survey Method

In order to obtain current labour demand in the industry sectors, a structured questionnaire survey was conducted. We used a detailed questionnaire to collect data on a number of aspects from the employers of the province. Enumerators were employed to gather data. Pretesting of the questionnaire was done by using a selected number of respondents. Enumerators were trained to conduct the survey by using the questionnaire. The questionnaire includes the following components:

a. Employer perception on training institutes
b. Employer perception on courses and trainees
c. Current employment profile of industry sectors
d. Desired employment during next five years in the industry sectors

Coded questionnaire was used to conveniently use it for data processing and analysis.

4.2. Employer Perception on Current Training Supply of Institutes

In order to obtain the employers perception about the training institutes and their courses, we obtained data using a Likert ranking scale. The ranking scale ranges from 1 to 5 where 1 indicates highly unsatisfied about the institutes and their programmes and 5 indicates highly satisfied about the institutes and their courses. The purpose of including this question in the survey is to gather data about the quality and relevance of the programmes offered by the TVET institutes.

a. Among the institutes surveyed, Vocational Training Authority, NAITA, NYSC and DTET have ranked the highest indicating that employers are highly satisfied about these institutes. This is a clear indication that the TVEC institutes provide a high quality service and the relevance of their study programmes meet the expectations of the employers (Table 4.9).
b. However, employers are less satisfied with the private and non-governmental institutes and their services (Table 4.9). The ranking scale obtained by the other state institutes were 2.3 out of 5 while the scale obtained by the non-state institutes were 3. Endless number of private tuition-like institutes providing various training courses have not been well recognized by the employers.
c. The fact that TVEC institutes provide NVQ designated courses have been highly accepted by the employers is clearly evident from these data. This also makes it clear that other state training institutes as well as all non-state training institutes should be brought under the NVQ framework to maintain the quality of training.

Table 4.9: The Perception of Employers on the Education and Training Providing Institutes

	Institute	Average Rank
1	Vocational Training Authority (VTA)	4.1
2	National Apprentice and Industrial Training Authority (NAITA)	4.2
3	National Youth Services Council (NYSC)	4.1
4	Department of Technical Education and Training (DTET)	4.1
5	Other State Institutes	2.3
6	Non-state Institutes	3

Note: Based on a ranking scale ranging from 1 to 5 where 1 stands for highly unsatisfactory and 5 stands for highly satisfactory.
Source: survey data

We also obtained data on the quality and the relevance of the courses offered by various institutes as employer perception feedback. Table 4.10 provide summary statistics with reference to this.

a. While VTA, NAITA, NYSC and DTET courses are relatively highly ranked by employers, they are still able to make improvements to their programmes to reach the highest level of satisfaction.
b. One of the issues raised by the employers about the trainees is that during the initial negotiations as well as working period, the trainees expect very high salaries and work that does not demand hard labour.
c. Most trainees according to the employers seek white-collar type of jobs which are not that much available in the sectors. They suggest that training institutes incorporate programmes to change the attitudes of the trainees so that they will fit into any working environment in the industry.
d. On the other hand employers are not satisfied with the courses offered by various government institutes which do not come under TVEC as well as the courses offered by the non-state institute.
e. The perception of the employers is that most trainees of other state institutes and non-state institutes tend to possess theory training but they are not very conversant in applications and actual work.
f. Some employers complained that trainees break/spoil their machines due to lack of practical training.

Table 4.10: The Perception of Employers on the Education and Training Providing Institutes

	Institute	Average Rank
1	Vocational Training Authority (VTA)	4.0
2	National Apprentice and Industrial Training Authority (NAITA)	3.9
3	National Youth Services Council (NYSC)	3.8
4	Department of Technical Education and Training (DTET)	3.9

	Institute	Average Rank
5	Other State Institutes	3.0
6	Non-state Institutes	3.0

Source: Provincial General Survey

4.3. Employment Profile in Industry Sectors

As the first step, we used the data provided by the employers as prospective demand for each occupation in the two districts and the province during the next five year period. In this sub-section we discuss the employment profiles of industry sectors as the summary of the two districts and the province. In identifying the current and future demand for various skill worker categories in the NCP, we used two approaches. One approach was to record the number of new workers to be recruited by each business firm in the future based on the employers response. The other is to forecast the five year demand for various occupations in the province. Table 4.11, 4.12 and 4.13 provide data on current and desired employment profiles of two districts (Anuradhapura and Polonnaruwa) and the NCP.

Table 4.11: Current and Desired Employment Profile in Manufacturing Sector of Anuradhapura District

Occupation	Total number of Existing Employees	Predicted Number of Employees				
	2015	2016	2017	2018	2019	2020
Motor mechanic	71	14	10	-	-	09
Cushion workers	21	19	12	6	9	-
Leaf-spring producers	12	6	4	-	-	7
Concrete workers	53	11	9	-	3	1
Lathe machine workers	13	-	10	5	-	3
Cap production	6	-	-	-	-	-
Handloom	8	2	2	5	1	-
Cane production	30	3	1	3	6	7

Occupation	Total number of Existing Employees	Predicted Number of Employees				
Welders	97	8	4	12	9	19
Bakery workers	*51*	*10*	*14*	*12*	*20*	*13*
Pastry makers	18	23	15	13	8	7
Goldsmith	27	3	2	5	1	-
Gold jewelry creative designers	11	-	-	-	-	-
Iron workers	19	7	12	-	-	10
Aluminum workers	12	10	13	7	9	2
Fiber glass workers	3	-	-	-	-	-
Injector pump Mechanics	5	-	-	-	-	-
Electrician	51	10	2	1	-	7
Computer technician	12	5	3	10	6	-
Wood craft designers	8	-	-	-	-	-
Plant nursery	5	-	-	-	-	-
Photographic designers	7	-	-	-	-	-
Bite producers	18	-	-	-	-	-
Rice mill workers	180	-	-	-	-	-
Accountants/ accountant assistants	24	-	-	8	11	10
Picture framing	8	-	-	-	-	-
Glass cutters	9	-	-	-	-	-
Computer operators	113	-	11	9	14	20

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Industry sector survey

Table 4.12: Current and Desired Employment Profile in Manufacturing Sector of Polonnaruwa District

Occupation	Total number of Existing Employees	Predicted Number of Employees				
	2015	2016	2017	2018	2019	2020
Motor mechanic	12	5	11	-	12	-
Cushion workers	8	-	-	3	8	7
Leaf-spring producers	2	-	-	-	-	-
Concrete workers	11	12	-	8	11	14
Lathe machine workers	2	-	-	-	11	9
Cap production	-	-	-	-	-	-
Handloom	3	-	-	-	-	-
Cane production	11	-	-	-	-	-
Welders	21	9	6	4	10	2
Bakery workers	*7*	*20*	*14*	-	*2*	*8*
Pastry makers	8	20	13	12	-	-
Goldsmith	9	-	-	-	-	-
Gold jewelry creative designers	4	-	-	-	-	-
Iron workers	12	11	3	6	2	-
Aluminum workers	9	4	-	5	9	12
Fiber glass workers	-	-	-	-	-	-
Injector pump Mechanics	2	-	4	-	1	-

Occupation	Total number of Existing Employees	Predicted Number of Employees				
Electrician	21	4	10	8	-	12
Computer technician	8	2	1	1	9	-
Wood craft designers	6	-	-	-	-	-
Plant nursery	10	-	-	-	-	-
Photographic designers	4	-	-	-	-	-
Bite producers	7	-	-	-	-	-
Rice mill workers	180	10	7	13	-	11
Accountants/ accountant assistants	10	9	3	6	2	1
Picture framing	3	-	-	-	-	-
Glass cutters	2	-	-	-	-	-
Computer operators	23	6	4	9	11	-

Source: Industry sector survey

Table 4.13: Current and Desired Employment Profile in Hospitality and Tourism Sector in Anuradhapura District

Occupation	Number of Existing Employees	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Proprietor	18	2	1	4	5	-
Hotel Manager	18	3	1	1	4	4
Food and Beverage Manager	14	6	2	1	3	5
Restaurant Supervisor	21	6	8	3	1	8
Waiters	80	-	-	3	1	7

Occupation	Number of Existing Employees	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Barman	8	-	-	3	2	4
Front Office Supervisor	18	3	1	2	-	6
Receptionist	18	5	6	4	2	1
Bell Boy	9	4	6	3	1	1
Chef	26	6	5	2	4	7
Cook	41	7	6	4	11	10
Baker	29	12	-	6	2	5
Pastry Cook	10	20	12	10	-	2
Housekeeper	26	4	5	9	2	1
Housekeeping Supervisor	4	5	8	3	3	1
Laundry Supervisor	18	6	4	8	-	-
Room Boy	56	-	-	4	8	2
Laundryman	15	-	-	-	-	-
Accountant	18	2	1	5	4	1
Night auditor	18	3	7	2	1	8
Cashier	18	2	8	2	2	2
Accounts Assistant	15	3	5	9	1	4
Storekeeper	15	3	5	1	1	9
CAA	34	4	8	7	3	9
Mechanic	7	2	3	2	4	1
Electrician	10	6	5	7	8	2
Pool attendant	3	4	3	4	1	1
Gardner	28	4	3	2	1	8

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Provincial Industry Survey

Table 4.14: Current and Desired Employment Profile in Hospitality and Tourism Sector in Polonnaruwa District

Occupation	Number of Existing Employees	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Proprietor	06	4	3	5	2	1
Hotel Manager	06	6	4	3	4	5
Food and Beverage Manager	06	4	5	4	6	8
Restaurant Supervisor	12	4	2	1	2	1
Waiters	21	1	-	-	3	4
Barman	6	-	-	2	1	1
Front Office Supervisor	10	4	7	2	-	-
Receptionist	8	2	4	1	-	-
Bell Boy	9	4	2	1	5	3
Chef	14	3	2	4	-	1
Cook	31	8	4	6	1	2
Baker	16	3	2	7	1	9
Pastry Cook	20	7	3	1	3	9
Housekeeper	10	-	-	-	-	-
Housekeeping Supervisor	8	-	-	-	-	-
Laundry Supervisor	14	-	-	-	-	-
Room Boy	13	2	-	1	5	-
Laundryman	06	4	1	7	-	2
Accountant	16	6	-	4	1	6
Night auditor	8	5	1	-	-	-
Cashier	10	4	8	3	1	9
Accounts Assistant	8	3	6	4	9	1
Storekeeper	4	2	1	3	-	1
CAA	13	8	2	1	2	-
Mechanic	5	4	2	1	6	-
Electrician	7	3	1	7	-	2
Pool attendant	3	2	3	1	6	3
Gardner	3	5	2	7	1	8

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Industry Sector Survey

Table 4.15: Current and Desired Employment Profile in Services Sector in Anuradhapura District

Occupation	Number of Existing Emp	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Beautician	40	4	7	2	-	8
Barber	27	10	8	4	1	-
Photographer	21	4	2	7	1	3
Draftsman	02	1	-	-	-	-
Pharmacist	21	2	-	-	4	1
Optician	4	5	6	7	-	5
Motor Technician	10	6	7	-	-	3
Motor Vehicle Painter	14	4	2	2	1	1
Advertiser	10	5	1	3	9	1
Vehicle Service Technician	27	1	4	2	7	1
Sticker & Digital Printer	14	5	2	-	-	3
Tailor	51	12	11	5	7	6
Computer Technician	17	13	11	9	1	9
Goldsmith	8	2	4	3	1	8
Digital Printer	14	2	1	4	5	9
Laboratorist	04	1	1	1	-	-
Carpenter	127	12	13	8	14	12
Mason	140	12	3	13	-	4
Project Civil Engineering	-	-	-	-	-	-
Store Keeper	10	3	4	1	8	2
Electrician	16	10	5	1	8	-
Surveyor	9	12	10	3	9	1
Quantitative Surveyor	11	8	4	6	11	-

Occupation	Number of Existing Emp	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Project Supervisor	7	12	9	7	12	14
Welder	16	10	13	12	6	9
Aluminum Fabricator	20	2	3	1	5	6
Pharmacist	28	12	3	1	7	2
Machine Operator	18	7	1	4	7	-
Security Guard	11	5	1	8	3	8
Financial Assistance	9	11	4	6	3	1
Cashier	10	12	3	8	6	4
Health Service Assistance	11	-	-	-	-	-
Health Service Nurse	12	-	-	-	-	-
Health service Head Nurse	06	-	-	-	-	-

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Industry sector survey

Table 4.16: Current and Desired Employment Profile in Services Sector in Polonnaruwa District

Occupation	Number of Existing Emp	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Beautician	38	10	7	8	11	3
Barber	27	12	10	3	7	1
Photographer	19	10	11	18	12	7
Draftsman	6	2	1	-	-	-
Pharmacist	8	2	1	-	-	2
Optician	7	-	1	5	2	-
Motor Technician	7	2	-	4	8	1
Motor Vehicle Painter	11	5	4	-	6	1

Occupation	Number of Existing Emp	Number of New Employees				
	2015	2016	2017	2018	2019	2020
Advertiser	8	8	4	1	3	9
Vehicle Service Technician	21	13	11	-	5	9
Sticker & Digital Printer	18	1	6	5	9	1
Tailor	51	12	9	3	1	5
Computer Technician	10	2	1	1	2	1
Goldsmith	7	4	2	1	-	2
Digital Printer	8	1	-	2	-	-
Laboratorist	4	3	1	-	-	-
Carpenter	132	15	20	13	11	26
Mason	149	18	12	21	32	10
Project Civil Engineering	-	-	-	-	-	-
Store Keeper	14	-	-	-	-	-
Electrician	16	12	-	-	-	3
Surveyor	9	1	-	-	-	4
Quantitative Surveyor	4	1	-	-	-	-
Project Supervisor	5	2	9	1	4	1
Welder	28	1	2	7	1	9
Aluminum Fabricator	18	3	4	5	1	9
Pharmacist	6	4	5	1	8	7
Machine Operator	14	2	3	4	6	1
Security Guard	21	5	1	3	1	1
Financial Assistance	9	1	1	1	-	-
Cashier	9	4	5	3	9	1
Health Service Assistance	10	-	-	-	-	-
Health Service Nurse	34	-	-	-	-	-
Health service Head Nurse	6	-	-	-	-	-

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Industry sector survey

The above data indicates that the demand for various skilled worker categories is very low. The following reasons were identified as reasons for the low demand for skilled labour by the manufacturing sector in the NCP.

1. As it was explained earlier, the size of the manufacturing sector is very small in the NCP. Except a few medium and large scale enterprises, such as garment, nearly 95% of the business establishments are small and medium size which employ less than 20 workers. A lack of a growing and established manufacturing sector is a main reason for TVET trainees to find employment.
2. It was also observed that the business enterprises rely on unskilled and informally trained individuals for employment due to the fact that they wage costs are low and working conditions are not so demanding.
3. It was also observed business enterprises prefer to employ workers on a daily basis or casual basis to avoid paying EPF and ETF. Most employers indicated that ETF and EPF payments have become a serious problem for running their business.
4. In the questionnaire survey, it was observed that most firms do not have any future expansion plan. Their position is that they are running the business with difficulty and there is no room for future expansion. Some even indicated that they wish to close down firms due to these problems and will search for employment elsewhere.
5. Most employers are pessimistic about the future so that they assert that they do not need any further increase of demand in the future.
6. It was also observed that in the entire manufacturing, tourism and services sectors, there were no possible jobs for graduates in Arts and management. Even, what is existing is the jobs for lower level trained individuals.
7. We also observed that most business enterprises use the trainees provided by TVET institutes as a substitute for permanent recruitment. The firms have developed plans to hire these trainees on a rolling over system so that they are able to run the business using these trainees. Since trainees do not demand higher salaries as a small allowance is only needed and paid. The dependence of business firms on TVET trainees on a permanent basis on a rolling over basis, there is hardly any permanent demand for employment. This fact was even observed with respect to government institutes.
8. Tourism and hotel sector, the general perception is that due to seasonal nature of the markets, business firms are unable to hire permanent workforce. For most categories

of workers, firms use informally trained individuals or unskilled workers with very small wages. For instance, even though one might think that there will be a huge demand for chefs/cooks, room-boys, and other hotel workers which can be filled by TVET trained individuals as the tourism industry is flourishing, the fact of the matter is that hotels have hired a very percentage of unskilled or informally trained individuals for most of these jobs. Our data only indicates the employees who have obtained formal training. One serious misperception is that more than 95% of business operating in the tourism and hospitality sector are not in fact hotels, they are lodging and restaurants maintained and run at small levels which have hired family members as workers rather than wage employees. What has happened with the expansion of tourism is the expansion of these kind of business which hardly create any demand for TVET trained workforce.

9. Even in the services sector, a larger percentage of enterprises belong to retail and wholesale trade which virtually do not hire any significant number of TVET trained workers. In the areas of motor mechanic, repairing, and other services trainees or unskilled labour has taken the leading role.
10. Due to low wages and uncertain job prospects in the industry sectors, most TVET trained individuals appear to leave for foreign employment to countries in Middle East or in North Asia such a South Korea.

It must be emphasized that there are serious structural factors in the economy of NCP which would prevent from creating a significant demand for TVET trained individuals. As a result, a future development plan requires overall policy and regulatory changes along with sector specific reforms and promotions. These will be addressed in section 6 of this document.

4.4. Problems and Issues in the Desired Number of Employees Expressed by Employers

If one wants to rely completely on the employer feedback on demand for labour in the province during the next five years, desired employment expressed by the employers may be used to decide the training supply. However, we are of the opinion that the data given by the employers for demand for labour in the next five years suffers from significant problems and issues as can be summarized as following:

a. Employers do not express the future demand for labour as well as current demand due to the fear that they will be subjected to taxes.
b. Employers also under-estimate the number of employees in the future due to the fact that they will be compelled to pay Employee Provident Fund and Trust Fund
c. Most employers employee short term and temporary as well as daily labours to avoid paying EPF and ETF.
d. Employers also appear to prefer to use persons who are on training rather than trained employees as they do not need to pay market equivalent salaries to the trainees.
e. Response of some trainees were subjected to their own political opinions. When they are against the incumbent government, they appear to express the view that business is not good and they will have to quit business so that there is no need to recruiting new workers in the future.
f. Since most businesses are short term oriented, they do not have any future business plan so that they are unable to provide any employment data for the future. Most establishments have a very current business focus and extremely uncertain expectations about the future operations so that most indicated that they do not need any future increase of employs as they do not have a plan to expand.

These problems and issues embedded in the number of current and desired employment tend to seriously affect the predicted demand for labour as expressed by the employers. Economists do not basically rely on perceptions of employers for labour demand predictions as they are convinced that perceptions are influenced by various beliefs as well as risks. Economic trends and principles need to be taken in to account for any meaningful prediction of economy. Therefore, it is advisable that we use economic forecasting to provide alternative set of data on demand for employment in the future. This prediction may be used as an alternative to the predictions based on employer perceptions.

4.5. Forecasting Based on Economic/Industry Growth as an Alternative to Employer Perception-Based Prediction

As a result, we used the following time series econometric/statistical method to forecast the demand for workers for each occupation in the NCP.

a. Predicted number of prospective employees in i^{th} occupation in 2015

$$DL^{i}_{2015} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+1}\} - \{DL_{t=0}{}^{i}\}$$

b. Predicted number of prospective employees in i^{th} occupation in 2016

$$DL^{i}_{2016} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+2}\} - \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+1}\} - \{DL_{t=0}{}^{i}\}$$

c. Predicted number of prospective employees in i^{th} occupation in 2017

$$DL^{i}_{2017} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+3}\} - \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+2}\} - \{DL_{t=0}{}^{i}\}$$

d. Predicted number of prospective employees in i^{th} occupation in 2018

$$DL^{i}_{2018} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+4}\} - \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+3}\} - \{DL_{t=0}{}^{i}\}$$

e. Predicted number of prospective employees in i^{th} occupation in 2019

$$DL^{i}_{2019} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+5}\} - \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+4}\} - \{DL_{t=0}{}^{i}\}$$

f. Predicted number of prospective employees in i^{th}occupation in 2020

$$DL^{i}_{2020} = \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+6}\} - \{DL_{t=0}{}^{i}(1 + g_{EM})^{t+5}\} - \{DL_{t=0}{}^{i}\}$$

Where:

DL = Demand for labour

i = a given occupation

g_{EM} = expected growth rate of employment in the given occupation

t = time

Assumptions used in the prediction of demand for labour:

We use the above equations by using econometric software called "Stata" to compute the predicted labour force in each occupation. The computation of employment forecasts of the industry sectors of the NCP needs to be based on a number of factors such as the expected

growth of the economy during the next five years, expected number of persons who will retire/exit from the workplaces, exit of labour due to deaths and illnesses, and vacancies that will be created as a result of migration of skilled manpower from the provinces to the other provinces of the country and other countries for working. The following assumptions and stylized facts were taken into account for the demand forecasts of manpower of the NCP:

a. The government as well as the Central Bank has aimed to maintain a minimum 8% growth of GDP during the next few years and the per capita income to reach to US$ 12,000 per year by 2030. The growth of economy is expected to create new jobs in the NCP. Considering the fact that most economic activities that are expected to emerge as a result of this economic expansion during the next few years in the NCP are labour intensive economic activities in primary industries and accompanying services, we used 1:3 of labour – output ratio for the province to determine the expected rate of new employment that will be created in the province. Therefore, during the next five years period, we expect a 3% rate of growth of employment in each occupation due to the above expected growth of the economy in the province. This expansion of employment is a reasonable expectation given the fact that Sri Lanka is aiming to maintain rapid economic growth during the next two decades.
b. Every year, number of persons exiting labour force due to retirement, death or illnesses from respective services will also have to be accounted for in the prediction. Since the retirement data is not available in private sector of the NCP, we used the population ageing rate as a proxy for rate of retirement in private sector. The rate of population ageing in Sri Lanka in 2011 was 3.63 and in 2021 will be 3.72 (Department of Census and Statistics of Sri Lanka).According the United Nations population data, the crude death rate in Sri Lanka was 7% in 2013.Some other share will also exit the labour force due to permanent illnesses due to ageing. The percentage that appears to exit the labourforce in the province due to above reasons during the next five years would be about 12% per annum. Considering the expected retirements, deaths and illnesses, we assumed that at least 10% will exit the labour force per annum so that we included 10% new demand for skilled workers in each occupation in the NCP within next five years.
c. Labour migration also tends to affect the labour force of a province. Skilled workers migrate to other provinces of the country and other countries creating some vacancies for new entrants to the labour market. Rural to urban migration and emigration of

workers to other countries is a major phenomenon in Sri Lanka. Being a predominantly rural economy, NCP is expected to experience labour migration from the province to other provinces and other countries. In most often, historical evidence suggests that more experienced and senior skilled workers choose to migrate for working aboard or in metropolis of the other provinces in the country. In order to account for this, we included 2% growth of employment for new entrants to the labour market.

d. Considering (a), (b), and (c) above, we assumed that the demand for skill workers in the NCP during the next five years will grow by 15% per annum.
e. We also assume that the above rates will remain constant during the next five years.

Based on the total employment of a particular occupation in each district and the NCP as expressed by the employers in 2014 and the expected rate of growth of employment (15%) per annum during the next five years, we computed the predicted demand for new employment in each district and the province for the next five years by using the equations specified above. Computed statistics is given in Tables 4.17 to 4.19.

Table 4.17: Total Predicted Demand for Manpower in Anuradhapura District

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
TV/Radio Repairers	57	9	10	11	13	15
Accountant	18	3	3	4	4	5
Account assistants	39	6	7	8	9	10
Advertiser	10	2	2	2	2	3
Aluminum Fabricator	20	3	3	4	5	5
Aluminum workers	12	2	2	2	3	3
Baker	29	4	5	6	7	8
Bakery workers	*51*	8	9	10	12	13
Hair dressers	27	4	5	5	6	7
Barman	8	1	1	2	2	2
Beautician	40	6	7	8	9	10
Bell Boy	9	1	2	2	2	2

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Bite producers	18	3	3	4	4	5
CAA	34	5	6	7	8	9
Cane production	30	5	5	6	7	8
Cap production	6	1	1	1	1	2
Carpenter	127	19	22	25	29	33
Cashier	28	4	5	6	6	7
Chef	26	4	4	5	6	7
Computer operators	113	17	19	22	26	30
Computer technician	29	4	5	6	7	8
Cook	41	6	7	8	9	11
Cushion workers	21	3	4	4	5	6
Digital Printer	14	2	2	3	3	4
Draftsman	2	0	0	0	0	1
Electrician	77	12	13	15	18	20
Electronic	41	12	7	11	10	9
Engineering servicemen	0	0	0	0	0	0
English (general)	0	0	0	0	0	0
Fiber glass workers	3	0	1	1	1	1
Forman	14	2	2	3	3	4
Front Office Supervisor	18	3	3	4	4	5
Gardner	28	4	5	6	6	7
Glass cutters	9	1	2	2	2	2
Graphic designers	13	4	6	5	4	9
Gold jewelry creative designers	11	2	2	2	3	3
Goldsmith	43	6	7	9	10	11
Handloom machine operator	8	1	1	2	2	2
Health Service Assistance	11	2	2	2	3	3
Health Service Nurse	12	2	2	2	3	3
Hotel Manager	18	3	3	4	4	5

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Housekeeper	26	4	4	5	6	7
Housekeeping Supervisor	4	1	1	1	1	1
ICT	19	3	3	4	4	5
Laboratorist	4	1	1	1	1	1
Lathe machine workers	13	2	2	3	3	3
Laundry Supervisor	18	3	3	4	4	5
Laundryman	15	2	3	3	3	4
Leaf-spring producers	12	2	2	2	3	3
Machine Operator	18	3	3	4	4	5
Mason	140	21	24	28	32	37
Motor bike and three wheeler Mechanic	7	1	1	1	2	2
Motor mechanic	71	11	12	14	16	19
Motor Technician	10	2	2	2	2	3
Motor Vehicle Painter	14	2	2	3	3	4
Night auditor	18	3	3	4	4	5
Optician	4	1	1	1	1	1
Pastry Cook	10	2	2	2	2	3
Pharmacist	49	7	8	10	11	13
Photographer	21	3	4	4	5	6
Photographic designers	7	1	1	1	2	2
Plumber	8	1	1	2	2	2
Pool attendant	3	0	1	1	1	1
Project Manager	-	0	0	0	0	0
Project Supervisor	7	1	1	1	2	2
Quantitative Surveyor	11	2	2	2	3	3
Receptionist	18	3	3	4	4	5
Restaurant Supervisor	21	3	4	4	5	6
Rice mill workers	180	27	31	36	41	47
Room Boy	56	8	10	11	13	15

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Security Guard	11	2	2	2	3	3
Sticker & Digital Printer	14	2	2	3	3	4
Tailor	51	8	9	10	12	13
Vehicle Service Technician	27	4	5	5	6	7
Waiters	80	12	14	16	18	21
Welder	113	17	19	22	26	30
Wood craft designers	8	1	1	2	2	2

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Based on statistical/econometric predictions

Table 4.18: Total Predicted Demand for Manpower in Polonnaruwa District

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
TV/Radio Repairers	43	6	14	22	32	43
Accountant	16	2	5	8	12	16
Account assistants	18	3	6	9	13	18
Advertiser	8	1	3	4	6	8
Aluminum Fabricator	18	3	6	9	13	18
Aluminum workers	9	1	3	5	7	9
Baker	16	2	5	8	12	16
Bakery workers	*7*	1	2	4	5	7
Barman	6	1	2	3	4	6
Beautician	38	6	12	20	28	38
Bell Boy	9	1	3	5	7	9
Bite producers	7	1	2	4	5	7
CAA	13	2	4	7	10	13
Cane production	11	2	4	6	8	11
Cap production	-	0	0	0	0	0

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Carpenter	132	20	43	69	99	133
Cashier	19	3	6	10	14	19
Chef	14	2	5	7	10	14
Computer operators	23	3	7	12	17	23
Computer technician	18	3	6	9	13	18
Cook	31	5	10	16	23	31
Cushion workers	8	1	3	4	6	8
Digital Printer	8	1	3	4	6	8
Draftsman	6	1	2	3	4	6
Electrician	44	7	14	23	33	44
Electronic	24	8	7	9	10	12
Engineering servicemen	12	4	5	3	8	2
Fiber glass workers	-	0	0	0	0	0
Foreman	6	1	2	3	4	6
Front Office Supervisor	10	2	3	5	7	10
Gardner	3	0	1	2	2	3
Glass cutters	2	0	1	1	1	2
Gold jewelry creative designers	4	1	1	2	3	4
Goldsmith	16	2	5	8	12	16
Hair dressers	63	10	14	15	10	12
Handloom machine operator	3	0	1	2	2	3
Health Service Assistance	10	2	3	5	7	10
Health Service Nurse	34	5	11	18	25	34
Hotel Manager	6	1	2	3	4	6
Housekeeper	10	2	3	5	7	10
Housekeeping Supervisor	8	1	3	4	6	8
ICT	32	0	1	1	1	2
Laboratory technician	4	1	1	2	3	4
Lathe machine workers	2	0	1	1	1	2
Laundry Supervisor	14	2	5	7	10	14

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Laundryman	6	1	2	3	4	6
Leaf-spring producers	2	0	1	1	1	2
Machine Operator	14	2	5	7	10	14
Machinist	27	5	4	6	7	9
Mason	149	22	48	78	112	151
Motor bike and three wheeler mechanic	54	12	15	17	10	12
Motor mechanic	12	2	4	6	9	12
Motor Technician	7	1	2	4	5	7
Motor Vehicle Painter	11	2	4	6	8	11
Night auditor	8	1	3	4	6	8
Optician	7	1	2	4	5	7
Pastry Cook	20	3	6	10	15	20
Pharmacist	14	2	5	7	10	14
Photographer	19	3	6	10	14	19
Photographic designers	4	1	1	2	3	4
Plumbers	3	0	1	2	2	3
Pool attendant	3	0	1	2	2	3
Project manager	-	0	0	0	0	0
Project Supervisor	5	1	2	3	4	5
Quantitative Surveyor	4	1	1	2	3	4
Receptionist	8	1	3	4	6	8
Restaurant Supervisor	12	2	4	6	9	12
Rice mill workers	180	27	58	94	135	182
Room Boy	13	2	4	7	10	13
Security Guard	21	3	7	11	16	21
Sticker & Digital Printer	18	3	6	9	13	18
Tailor	51	8	16	27	38	52
Vehicle Service Technician	21	3	7	11	16	21
Waiters	21	3	7	11	16	21

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Welder	49	7	16	26	37	50
Wood craft designers	6	1	2	3	4	6

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.

Source: Based on statistical/econometric predictions

Table 4.19: Total Predicted Demand for Manpower in NCP

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
TV/Radio Repairers	100	15	24	33	45	58
Accountant	34	5	8	12	16	21
Account assistants	57	9	13	17	22	28
Advertiser	18	3	5	6	8	11
Aluminum Fabricator	38	6	9	13	18	23
Aluminum workers	21	3	5	7	10	12
Baker	45	6	10	14	19	24
Bakery workers	58	9	11	14	17	20
Barman	14	2	3	5	6	8
Beautician	78	12	19	28	37	48
Bell Boy	18	2	5	7	9	11
Bite producers	25	4	5	8	9	12
CAA	47	7	10	14	18	22
Cane production	41	7	9	12	15	19
Cap production	6	1	1	1	1	2
Carpenter	259	39	65	94	128	166
Cashier	47	7	11	16	20	26
Chef	40	6	9	12	16	21
Computer operators	136	20	26	34	43	53
Computer technician	47	7	11	15	20	26

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Computer networking	0	0	0	0	0	0
Cook	72	11	17	24	32	42
Cushion workers	29	4	7	8	11	14
Digital Printer	22	3	5	7	9	12
Draftsman	8	1	2	3	4	7
Electrician	121	19	27	38	51	64
Electronic	65	20	14	20	20	21
Engineering servicemen	12	4	5	3	8	2
English (general)	0	0	0	0	0	0
Fiber glass workers	3	0	1	1	1	1
Foreman	20	3	4	6	7	10
Front Office Supervisor	28	5	6	9	11	15
Gardner	31	4	6	8	8	10
Glass cutters	11	1	3	3	3	4
Graphic designers	13	4	6	5	4	9
Gold jewelry creative designers	15	3	3	4	6	7
Goldsmith	59	8	12	17	22	27
Hair dressers	117	18	28	34	36	46
Handloom machine operator	11	1	2	4	4	5
Health Service Assistance	21	4	5	7	10	13
Health Service Nurse	46	7	13	20	28	37
Hotel Manager	24	4	5	7	8	11
Housekeeper	36	6	7	10	13	17
Housekeeping Supervisor	12	2	4	5	7	9
ICT	51	3	4	5	5	7
Laboratory technician	8	2	2	3	4	5
Lathe machine workers	15	2	3	4	4	5
Laundry Supervisor	32	5	8	11	14	19
Laundryman	21	3	5	6	7	10
Leaf-spring producers	14	2	3	3	4	5

Occupation	Existing Demand	Predicted Additional Demand				
	2015	2016	2017	2018	2019	2020
Machine Operator	32	5	8	11	14	19
Machinist	27	5	4	6	7	9
Mason	289	43	72	106	144	188
Motor bike and three wheeler mechanic	61	13	16	18	12	14
Motor mechanic	83	13	16	20	25	31
Motor Technician	17	3	4	6	7	10
Motor Vehicle Painter	25	4	6	9	11	15
Night auditor	26	4	6	8	10	13
Optician	11	2	3	5	6	8
Pastry Cook	30	5	8	12	17	23
Pharmacist	63	9	13	17	21	27
Photographer	40	6	10	14	19	25
Photographic designers	11	2	2	3	5	6
Plumbers	11	1	2	4	4	5
Pool attendant	6	0	2	3	3	4
Project Supervisor	12	2	3	4	6	7
Quantitative Surveyor	15	3	3	4	6	7
Receptionist	26	4	6	8	10	13
Restaurant Supervisor	33	5	8	10	14	18
Rice mill workers	360	54	89	130	176	229
Room Boy	69	10	14	18	23	28
Security Guard	32	5	9	13	19	24
Sticker & Digital Printer	32	5	8	12	16	22
Tailor	102	16	25	37	50	65
Vehicle Service Technician	48	7	12	16	22	28
Waiters	101	15	21	27	34	42
Welder	162	24	35	48	63	80
Wood craft designers	14	2	3	5	6	8

Note: Predicted additional demand indicate the new demand that will be created in addition to the existing workers in a given year.
Source: Based on statistical/econometric predictions

4.6. Summary

This section attempted to document current and expected employment profiles of industry sectors in the NCP to assist the training institutes on possible absorption capacity of the province. We employed a questionnaire survey to gather data.

a. We analyzed the employer perception on the quality and relevance of training institutes as well as their training programmes.
b. We documented the current and desired manpower requirement of the province as expressed by the employers who were subject to the questionnaire survey.
c. As there are significant deficiencies of the desired number of employment expected by the employers in the next few years, we employed economic forecasting techniques in the form of statistical/econometric methods to make predictions about employment. This is a more realistic approach as many policy institutes, both governmental and non-governmental, employ economic approaches to make predictions on the basis of the fact that data provided by future employment by the employers are subject to serious errors and risks.
d. We would like to state that policy makers have the option of using either the desired number of employment expressed by the employers or the predicted number of employment using economic forecasts. Either approach tends include limitations as will be described in the final section of this report.

Chapter 05
Current Training Profile – Supply of Skilled Manpower to the Provincial Labour Market

5.1. TVET Institutional Network

This section documents the information on TVET institutions available in the two districts and NCP. Institutes belonging to the TVEC, and other state institutes as well as non-state institutes are operating the NCP in providing various vocational education and training programmes. There are 18 Divisional Secretariat divisions in the Anuradhapura. However, they are not evenly distributed.

a. There is a shortage of TVET institutions in some DS divisions such as Padiviya, Kebithogollewa, Mahavilachchiya, Medavachchiya, Rajanganaya, and Thalawa (Table 5.1). New training centers according to the demand need to be established in these DV divisions.
b. Some clustering of the existing institutes/centers seems also required.
c. In the case of Polonnaruwa district, being a small district in terms of both area as well as population, there appears to be a sufficient number of training institutes (Table 5.2).
d. One of the key observations about institutes is that various non-state tuition-like institutes have mushroomed in both Anuradhapura and Polonnaruwa districts offering endless number of fake diplomas and certificates. This has become a menace as there is no legal framework in the province or in the country to regulate the vocational education and training institutes as it has happened in the formal education system, whether it is schools or Universities. Regulating institutions through a licensing systems is a dire need.

Table 5.1: List of TVET Institutes in Anuradhapura District

Institute	Location/Address
College of Technology	A13, Anuradhapura
National Youth Services Council	Maradankadawala Road, Depot Junction, Kekirawa.
District Vocational Training Centre	Vocational Training Authority of Sri Lanka, Nuwarawewa Road, Anuradhapura.
VijayaKumarathunga Vocational Training Centre	Vocational Training Authority of Sri Lanka, Rambewa Road, Mihinthale.
SOS Children's Villages Sri Lanka	SOS Vocational Training Centre, P.O. Box 03, D.S. Senanayake Mawatha, Anuradhapura.
Don Bosco Vocational Training Centre	Puttalam Road, Nochchiyagama .
Salon Thejani Hair and Beauty International Academy	No. 2879, Stage III, SangaboMawatha, Anuradhapura.
Sri Lanka Bureau of Foreign Employment	No.395/12A, MudithaMawatha, Anuradhapura.
Lanka Vocational Education & Training Academy (Pvt) Ltd	No.521/52, New Bus Stand, Anuradhapura.
Kekirawa Pradeshiya Sabha Nenasala IT Centre	PradeshiyaSabawa, Kekirawa
Nexus Computer Technologies (Pvt) Ltd	No: 561/86C, Fair Road, New Bus Stand, Anuradhapura.
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Mannar Road, Medawachchiya.
	Vocational Training Authority of Sri Lanka, Mahaweli Camp, Nochchiyagama.
	Vocational Training Authority of Sri Lanka, Thabuththegama (Behind the Magestrate Court)
	Vocational Training Authority of Sri Lanka, Near the Agriculture Office, Thirappane.
	Vocational Training Authority of Sri Lanka, Opposite the Post Office, Alayapattuwa.
	Vocational Training Authority of Sri Lanka,
	Near Pradeshiya Sabha, Palugaswewa.

Table 5.2: List of TVET Institutes in Polonnaruwa District

Institute	Location/Address
Technical College	Vidyapura, Polonnaruwa.
District Vocational Training Centre	Vocational Training Authority of Sri Lanka, NagalakandaViharaMawatha, Minneriya.
NAITA - Sri Lanka Mahaweli Authority Training Centre	Seventh Mile Post, HansayaPalama, Aralaganwila.
Saraswathi Computer Training Centre	Nenasala, Asokaramaya, New Town, Medirigiriya.
National Youth Corps Training Centre	HansayaPalama, Aralaganwila, Polonnaruwa.
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Economic Trade Centre Building, Manampitiya.
	Vocational Training Authority of Sri Lanka, Village Development Building, Weerapura, Polonnaruwa.
Protective Accommodation & Rehabilitation Centre	New Senapura,Welikanda
Zonal ICT Education Centre	Thopawewa Maha Vidyalaya, Polonnaruwa
Information and Communication Technology Centre	PO/ Royal Central College, Polonnaruwa.
Nursing Education and Training Academy	Nursing School Polonnaruwa (Pvt) Ltd, NO:3, Hospital Junction, Polonnaruwa.

5.2. Currently Available TVET Courses in the Province

We also document and evaluate the existing courses in the NCP. Existing courses in both the districts are mostly certificate level courses. Diploma level courses are lacking. What is available is generally known ones catering to the needs of the segment of the industry.

There are some deficiencies in the existing courses.

a. There are no courses specifically addressing regional needs such as rice milling, manufacturing of machines and equipment required for agriculture and post-harvest technology, skills and knowhow required for post-harvest business processing, food processing technology, developing and manufacturing new agro-based products.

b. There are also some emerging areas/needs which
c. Short courses, certificate courses as well as diploma courses are required to cater to these. Some courses will have to be offered in collaboration with institutes that come under other ministries such as agriculture and higher education.

Table 5.3: Currently Available TVET Courses in the Anuradhapura District

Institute	Location/Address	Course Title
College of Technology	Anuradhapura	Field Assistants (agriculture)
		National Certificate in Engineering Craft Practice (Plumbing)
		National Certificate in Engineering Craft Practice (Ref & Air)
		National Certificate in Engineering Craft Practice (Motor Vehicle Mechanic)
		National Certificate in Engineering Craft Practice (Industrial Electrician)
		National Certificate in Engineering Craft Practice (Electronics)
		Certificate in Motor Cycle and Scooter Repairing
		National Certificate in Engineering Craft Practice (Gas and Arc welders)
		Certificate in Repairing Household Electrical Appliances
		Electricians (special)
		Construction site supervisor
		National Certificate in English for Commerce and Further Education
		National Certificate on Accounting Technicians
		National Certificate in Typesetting, Shorthand, and Computing (Sinhala)
		National Certificate in Korean Language
		CAA
		National Certificate in Engineering Draughtsman
		National Certificate in Technology - civil

Institute	Location/Address	Course Title
		National Certificate in Technology – QS
		National Certificate in Technology – ME
		National Certificate in Technology (electrical and electronic engineering)
		Diploma in Construction Technology
		Diploma in Ref and Air Technology
		Diploma in Farm Machinery Technology
		Diploma in QS Technology
		Diploma in ICT
District Vocational Training Centre	Vocational Training Authority of Sri Lanka, Nuwarawewa Road, Anuradhapura.	Certificate for Hair Dresser
		Certificate for Computer Hardware Technician
		Certificate for Room Attendant
		Certificate in Food and Beverage Service
		Certificate for Steward
		Certificate for Draughtsperson
		Radio , TV & Allied Equipment Repairer
		National Certificate in Information and Communication Technology
VijayaKumarathunga Vocational Training Centre	Vocational Training Authority of Sri Lanka, Rambewa Road, Mihinthale.	Certificate in Information & Communication Technology
		Certificate for Computer Hardware Technician
		Certificate for Information and Communication Technology Technician
		Certificate for Tailor
		Certificate for Motor Cycle Mechanic
		Certificate for Three Wheel Mechanic
SOS Children's Villages Sri Lanka	SOS Vocational Training Centre, P.O. Box 03, D.S. SenanayakeMawatha, Anuradhapura	Certificate for Automobile Mechanic
		Certificate for Welder
		Certificate in Welding
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Mannar Road, Medawachchiya	Certificate Course in Screen Printing
		Certificate for Motor Cycle Mechanic
		Certificate for Three Wheel Mechanic
		Certificate Course for Household Electrical Appliance Repairer

Institute	Location/Address	Course Title
		Certificate Course for Aluminium Fabricator
		Certificate for Aluminum Fabricator
		Certificate for Household Electrical Appliances Repairer
		Certificate for Information and Communication Technology Technician
		Certificate in Screen Printing
		Certificate for Tailor
		Certificate for Computer Hardware Technician
		Certificate for Construction Craftsman (Masonry)
		Certificate for Tailor
		Certificate for Electrician
Don Bosco Vocational Training Centre	Puttalam Road, Nochchiyagama	Certificate for Automobile Mechanic
		Certificate for Machinist
		Certificate for Welder
		Certificate for Electrician
		Certificate for Refrigeration and Air Conditioning Mechanic
		Certificate for Tailor
		Certificate for Computer Applications Assistant
		Certificate for Computer Hardware Technician
		Certificate Course in Handicraft
Salon Thejani Hair and Beauty International Academy	No. 2879, Stage III, SangaboMawatha, Anuradhapura	Certificate for Hair Dresser
		Certificate for Beautician
Sri Lanka Bureau of Foreign Employment	No.395/12A, MudithaMawatha, Anuradhapura.	Certificate for Domestic House Keeping Assistant
		Five Days Orientation Training Course for Workers Leaving other than Housekeeping
		Domestic Sector House Keeping and Care Giving Training Programme - Middle East
		05 Days Orientation Training Programme for Workers other than Domestic House Keeping

Institute	Location/Address	Course Title
Lanka Vocational Education & Training Academy (Pvt) Ltd	No.521/52, New Bus Stand, Anuradhapura.	Certificate in Nurse Assistant
KekirawaPradeshiya Sabha Nenasala IT Centre	PradeshiyaSabawa, Kekirawa	Certificat in Computer Science
		Microsoft Office Course
		Graphic Designing Course
		Web Designing Course
		Certificate in Computer Hardware
		Certificate in Computer Science
		Certificae in Microsoft Office
		Basic Certificate in Graphic Designing
		Certificate in Web Designing
Nexus Computer Technologies (Pvt) Ltd	No: 561/86C, Fair Road, New Bus Stand, Anuradhapura.	Foundation in Computer Hardware
		Certificate in Office Application

Table 5.4: List of Available TVET Courses in Polonnaruwa District

Institute	Location/Address	Course Title
Technical College	Vidyapura, Polonnaruwa	National Certificate for Accounting Technician
		National Certificate in Technology (Civil)
		National Certificate in Engineering Craft Practice (Automobile Mechanic)
		National Certificate in Engineering Craft Practice (Electrician)
		National Certificate in Engineering Craft Practice (Electronic)
		National Certificate in Engineering Craft Practice (Gas and Arc Welder)
		National Certificate in Engineering Craft Practice (Plumber)
		National Certificate in Engineering Craft Practice (Ref. & AC)
		National Certificate in Engineering Craft Practice - Wood Machinist
		National Certificate in Engineering

Institute	Location/Address	Course Title
		Draugthsmanship
		Certificate for Computer Applications Assistant
		National Certificate in English for Commerce, Industry and Further Education
		National Certificate in Engineering Craft Practice (Civil)
		National Certificate in Engineering Craft Practice - Fitter Machinist
		National Certificate in Technology (Civil)
		National Certificate for Accounting Technicians
		Certificate Course for Wood Craftsman (Furniture)
		Certificate Course for Refrigeration and Air Conditioning
		Certificate Course for Radio, TV and Allied Equipment Repairer
District Vocational Training Centre	Vocational Training Authority of Sri Lanka, NagalakandaViharaMawatha, Minneriya.	Certificate for Refrigeration and Air Conditioning Mechanic
		Certificate for Machinist
		Certificate for Welder
		Certificate for Electrician
		Certificate for Construction Craftsman
		National Diploma in Information and Communication Technology
		Certificate for Welder
		Certificate for Refrigeration and Air Conditioning Mechanic
		Certificate for Machinist
		Certificate for Electrician
		National Diploma in Information and Communication Technology Technician
		Certificate for Construction Craftsman
NAITA - Sri Lanka Mahaweli Authority Training Centre	Seventh Mile Post, HansayaPalama, Aralaganwila.	Certificate in Automobile Mechanic
		Certificate in Household Electrical Appliance Repairer
		Certificate in Computer Application Assistant

Institute	Location/Address	Course Title
		Certificate in Tailor
		Certificate for Welder
		Certificate for Automobile Mechanic
		Certificate for Household Electrical Appliances Repairer
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Economic Trade Centre Building, Manampitiya.	Certificate for Tailor
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Economic Trade Centre Building, Manampitiya.	Certificate for Baker
		Certificate for Aluminium Fabricator
Vocational Training Centre	Vocational Training Authority of Sri Lanka, Village Development Building, Weerapura, Polonnaruwa.	Certificate for Wood Craftsman (Furniture)
Saraswathi Computer Training Centre	Nenasala, Asokaramaya, New Town, Medirigiriya.	Certificate Course in Ms Office
		Certificate in Ms Office
National Youth Corps Training Centre	HansayaPalama, Aralaganwila, Polonnaruwa.	Awareness Programme in Leadership and Personality Development
National Youth Corps Training Centre	HansayaPalama, Aralaganwila, Polonnaruwa.	Awareness Programme in Leadership and Personality Development
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Carpenter
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Masonry

Institute	Location/Address	Course Title
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Plumber
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Electrical
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Certificate for Electrician
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Certificate for Plumber
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Certificate for Mason
Protective Accommodation & Rehabilitation Centre	New Senapura, Welikanda	Certificate for Carpenter (Building)
Zonal ICT Education Centre	ThopawewaMahaVidyalaya, Polonnaruwa	Basic Certificate for Computer Applications Assistant
Information and Communication Technology Centre	PO/ Royal Central College, Polonnaruwa.	Preparatory course for Computer Application Assistant
Nursing Education and Training Academy	Nursing School Polonnaruwa (Pvt) Ltd, NO:3, Hospital Junction, Polonnaruwa.	Certificate for Nurse Assistant

5.3. Current and Predicted Training Output in the Province

The current and predicted training supply data of various TVET institutes were obtain through:

a. A detail questionnaire survey
b. Written submissions by the institutes
c. Feedback at the stakeholder consultation meetings held from time to time

Table, 5.5, 5.6, and 5.7 provide training supply data provided by TVET institutes in Anuradhapura and Polonnaruwa districts and NCP respectively. Based on the nature of the training, we have categorized them under various occupations. The training supply data appears to be based on current/existing numbers. These data do not include information on any changes that would occur in the future due to reduction of demand for training or demand for different new courses. However, this data is useful to make a judgment on the trends and patters of future training supply by various TVET institutes in the province.

Table 5.5: Total Current and Predicted Training Output in Anuradhapura District

Occupation	2015	2016	2017	2018	2019	2020
TV/Radio Repairer	68	100	280	280	280	280
Advertiser	16	25	25	25	25	25
Aluminum Fabricator	25	20	20	20	20	20
Baker	80	80	260	260	260	260
Bakery workers	0	0	0	0	0	0
Barman	22	0	0	0	0	0
Beautician	45	45	45	45	45	45
Bell Boy (Hotels)	0	0	0	0	0	0
Bite producers	180	0	0	0	0	0
CAA	250	250	400	400	400	400
Cane production	0	0	0	0	0	0
Cap production	0	0	0	0	0	0
Carpenter	100	100	100	100	100	100

Occupation	2015	2016	2017	2018	2019	2020
Cashier	20	20	20	20	20	20
Chef/Cook	30	30	30	30	30	30
Computer operator	77	90	90	90	90	90
Computer Hardware Technician	28	135	325	330	335	335
computer networking	30	30	30	30	30	30
Cushion workers	0	0	0	0	0	0
Digital Printer	0	0	0	0	0	0
Draftsman	16	20	20	20	20	20
Electrician	58	120	300	300	300	300
Electronic	0	0	0	0	0	0
Engineering servicemen	0	0	0	0	0	0
English	160	200	200	200	200	200
Fiber glass welder	50	50	50	50	50	50
Forman	17	30	30	30	30	30
Front Office Supervisor	0	0	0	0	0	0
Gardner	7	20	20	20	20	20
Glass cutters	0	0	0	0	0	0
Graphic Designing	36	70	75	75	75	75
Gold jewelry creative designers	0	0	0	0	0	0
Goldsmith	0	0	0	0	0	0
Hair dressers	110	190	190	190	190	190
Handloom Machine Operator	0	0	0	0	0	0
Health Service Assistance	0	0	0	0	0	0
Health Service Nurse	0	0	0	0	0	0
Hotel manager	0	0	0	0	0	0
Housekeeper	20	20	200	200	200	200
Housekeeping Supervisor	0	0	0	0	0	0
HR Manager	10	20	200	200	200	200
ICT	74	125	125	125	125	125

Occupation	2015	2016	2017	2018	2019	2020
Laboratory Technician	0	0	0	0	0	0
Lathe machine operator	20	20	20	20	20	20
Laundry Supervisor	0	0	0	0	0	0
Laundryman	0	0	0	0	0	0
Leaf-spring producers	0	0	0	0	0	0
Machine Operator	0	0	0	0	0	0
Machinist	0	0	0	0	0	0
Mason	25	25	25	25	25	25
Motor Bike and Three Wheeler Mechanic	101	165	165	165	165	165
Motor Mechanic	104	132	272	272	272	272
Motor technician	0	0	0	0	0	0
Motor Vehicle Painter	0	0	0	0	0	0
MS Office	80	110	115	130	140	150
Night auditor	0	0	0	0	0	0
Optician	0	0	0	0	0	0
Pastry Cook	0	0	0	0	0	0
Pharmacist	0	0	0	0	0	0
Photographer	0	0	0	0	0	0
Photographic designers	0	0	0	0	0	0
Plumber	50	50	50	50	50	50
Pool attendant	0	0	0	0	0	0
Project Manager	0	0	0	0	0	0
Project Supervisor	0	0	0	0	0	0
Quantitative Surveyor	0	0	0	0	0	0
Receptionist	0	0	0	0	0	0
Restaurant supervisor	0	0	0	0	0	0
Rice mill worker	0	0	0	0	0	0
Room Boy (Hotels)	15	20	20	20	20	20
Security Guard	0	0	0	0	0	0
Sticker & Digital Printer	22	30	30	30	30	30

Occupation	2015	2016	2017	2018	2019	2020
Tailor	36	80	260	260	260	260
Tiler						
Vehicle Service Technician	0	0	0	0	0	0
Waiter	10	30	30	30	30	30
Web page designing	20	40	50	50	50	50
Welder	13	42	212	212	212	212
Wood craft designers	0	0	0	0	0	0

Source: Training supply survey conducted among various training supply institutes.

Table 5.6: Total Current and Predicted Training Output in Polonnaruwa District

Occupation	2015	2016	2017	2018	2019	2020
Radio/TV Repairer	32	35	35	35	35	35
Advertiser	0	0	0	0	0	0
Aluminum Fabricator	0	0	0	0	0	0
Baker	12	30	30	30	30	30
Bakery workers	0	0	0	0	0	0
Barman	0	0	0	0	0	0
Beautician	0	0	0	0	0	0
Bell Boy	0	0	0	0	0	0
Bite producers	0	0	0	0	0	0
CAA	0	0	0	0	0	0
Cane production	0	0	0	0	0	0
Cap production	0	0	0	0	0	0
Carpenter	52	15	15	15	15	15
Cashier	0	0	0	0	0	0
Chef/Cook	0	0	0	0	0	0
Computer operator	25	25	25	25	25	25
Computer Hardware Technician	0	0	0	0	0	0
Computer Net Working	20	20	20	20	20	20
Cushion workers	0	0	0	0	0	0
Digital Printer	0	40	40	40	40	40

Occupation	2015	2016	2017	2018	2019	2020
Draftsman	30	30	30	30	30	30
Electrician	35	35	35	35	35	35
Electronic	39	40	40	40	40	40
Engineering servicemen	25	0	0	0	0	0
English	40	40	40	40	40	40
Fiber glass welder	30	30	30	30	30	30
Foreman	0	0	0	0	0	0
Front Office Supervisor	0	0	0	0	0	0
Gardner	0	0	0	0	0	0
Glass cutters	0	0	0	0	0	0
Graphic designers	0	0	0	0	0	0
Gold jewelry creative designers	0	0	0	0	0	0
Goldsmith	0	0	0	0	0	0
Hair dressers	0	0	0	0	0	0
Handloom Machine Operator	0	0	0	0	0	0
Health Service Assistance	0	0	0	0	0	0
Health Service Nurse	0	0	0	0	0	0
Hotel manager	0	0	0	0	0	0
Housekeeper	0	0	0	0	0	0
Housekeeping Supervisor	0	0	0	0	0	0
HR Manager	0	0	0	0	0	0
ICT	300	330	355	380	405	430
Laboratory Technician	0	0	0	0	0	0
Lathe machine operator	0	0	0	0	0	0
Laundry Supervisor	0	0	0	0	0	0
Laundryman	0	0	0	0	0	0
Leaf-spring producers	0	0	0	0	0	0
Machine Operator	0	0	0	0	0	0
Machinist	0	40	40	40	40	40
Mason	28	60	60	60	60	60
Motor Bike and Three Wheeler Mechanic	55	55	55	55	55	55
Motor Mechanic	40	40	40	40	40	40
Motor technician	12	12	12	12	12	12

Occupation	2015	2016	2017	2018	2019	2020
Motor Vehicle Painter	0	0	0	0	0	0
MS Office	150	150	150	200	200	300
Night auditor	0	0	0	0	0	0
Optician	0	0	0	0	0	0
Pastry Cook	0	0	0	0	0	0
Pharmacist	0	0	0	0	0	0
Photographer	0	0	0	0	0	0
Photographic designers	0	0	0	0	0	0
Plumber	15	15	15	15	15	15
Pool attendant	0	0	0	0	0	0
Project Manager	0	0	0	0	0	0
Project supervisor	0	0	0	0	0	0
Quantitative Surveyor	0	0	0	0	0	0
Receptionist	0	0	0	0	0	0
Restaurant Supervisor	0	0	0	0	0	0
Rice mill worker	0	0	0	0	0	0
Room Boy	0	0	0	0	0	0
Security Guard	0	0	0	0	0	0
Sticker & Digital Printer	0	0	0	0	0	0
Tailor	25	25	25	25	25	25
Tiler	15	15	15	15	15	15
Vehicle Service Technician		0	0	0	0	0
Waiter	0	0	0	0	0	0
Web designing	0	0	0	0	0	0
Welder	35	35	35	35	35	35
Wood craft designers	15	15	15	15	15	15

Source: Training supply survey conducted among various training supply institutes

Table 5.7: Total Current and Predicted Training Output in North Central Province

Occupation	2015	2016	2017	2018	2019	2020
TV/Radio Repairer	100	135	315	315	315	315
Advertiser	16	25	25	25	25	25
Aluminum Fabricator	25	20	20	20	20	20
Baker	92	110	290	290	290	290
Bakery workers	0	0	0	0	0	0
Barman	22	0	0	0	0	0
Beautician	45	45	45	45	45	45
Bell Boy (Hotels)	0	0	0	0	0	0
Bite producers	180	0	0	0	0	0
CAA	250	250	400	400	400	400
Cane production	0	0	0	0	0	0
Cap production	0	0	0	0	0	0
Carpenter	152	115	115	115	115	115
Cashier	20	20	20	20	20	20
Chef/Cook	30	30	30	30	30	30
Computer operator	102	115	115	115	115	115
Computer Hardware Technician	28	135	325	330	335	335
computer networking	50	50	50	50	50	50
Cushion workers	0	0	0	0	0	0
Digital Printer	0	40	40	40	40	40
Draftsman	46	50	50	50	50	50
Electrician	93	155	335	335	335	335
Electronic	39	40	40	40	40	40
Engineering servicemen	25	0	0	0	0	0
English	200	240	240	240	240	240
Fiber glass welder	80	80	80	80	80	80
Forman	17	30	30	30	30	30

Occupation	2015	2016	2017	2018	2019	2020
Front Office Supervisor	0	0	0	0	0	0
Gardner	7	20	20	20	20	20
Glass cutters	0	0	0	0	0	0
Graphic Designing	36	70	75	75	75	75
Gold jewelry creative designers	0	0	0	0	0	0
Goldsmith	0	0	0	0	0	0
Hair dressers	110	190	190	190	190	190
Handloom Machine Operator	0	0	0	0	0	0
Health Service Assistance	0	0	0	0	0	0
Health Service Nurse	0	0	0	0	0	0
Hotel manager	0	0	0	0	0	0
Housekeeper	20	20	200	200	200	200
Housekeeping Supervisor	0	0	0	0	0	0
HR Manager	10	20	200	200	200	200
ICT	374	455	480	505	530	555
Laboratory Technician	0	0	0	0	0	0
Lathe machine operator	20	20	20	20	20	20
Laundry Supervisor	0	0	0	0	0	0
Laundryman	0	0	0	0	0	0
Leaf-spring producers	0	0	0	0	0	0
Machine Operator	0	0	0	0	0	0
Machinist	0	40	40	40	40	40
Mason	53	85	85	85	85	85
Motor Bike and Three Wheeler Mechanic	156	220	220	220	220	220
Motor Mechanic	144	172	312	312	312	312

Occupation	2015	2016	2017	2018	2019	2020
Motor technician	12	0	0	0	0	0
Motor Vehicle Painter	0	0	0	0	0	0
MS Office	230	260	265	330	340	450
Night auditor	0	0	0	0	0	0
Optician	0	0	0	0	0	0
Pastry Cook	0	0	0	0	0	0
Pharmacist	0	0	0	0	0	0
Photographer	0	0	0	0	0	0
Photographic designers	0	0	0	0	0	0
Plumber	65	65	65	65	65	65
Pool attendant	0	0	0	0	0	0
Project Manager	0	0	0	0	0	0
Project Supervisor	0	0	0	0	0	0
Quantitative Surveyor	0	0	0	0	0	0
Receptionist	0	0	0	0	0	0
Restaurant supervisor	0	0	0	0	0	0
Rice mill worker	0	0	0	0	0	0
Room Boy (Hotels)	15	20	20	20	20	20
Security Guard	0	0	0	0	0	0
Sticker & Digital Printer	22	30	30	30	30	30
Tailor	61	105	285	285	285	285
Tiler	15	15	15	15	15	15
Vehicle Service Technician	0	0	0	0	0	0
Waiter	10	30	30	30	30	30
Web page designing	20	40	50	50	50	50
Welder	48	77	247	247	247	247
Wood craft designers	15	15	15	15	15	15

Source: Training supply survey conducted among training institutes.

In addition to the above, we can also document the training supply data provided by the College of Technology (CoT), Anuradhapura that contains data for 2015 (Table 5.8). The data indicates that the CoT in Anuradhapura has provided large number of courses for a total of 833 students. The CoT of Anuradhapura is expected to provide these training programmes during the next five year period also up to 2020, in addition to new courses that may be introduced. Since these data indicate the list of courses and number of students, we are not able to integrate them with the general training supply data, as our labour demand data are based on specific occupations rather than training courses. However, one can consider the total number of vacancies that will be available during the next five years within the province and total number of trainees supplied to the economy in the province, whether there will be a shortage or surplus of trainees. Our objective was to understand whether there is a shortage or excess supply of training in each occupation in the NCP.

Table 5.8. Training Supply by College of Technology on Various Specific Training Courses in 2015

		Number Trained
1	Field Assistant (agriculture)	17
2	National Certificate in Engineering Craft Practice (plumbing)	18
3	National Certificate in Engineering Craft Practice (Ref. & Air)	19
4	National Certificate in Engineering Craft Practice (Motor vehicle mechanic), 1st year	21
5	National Certificate in Engineering Craft Practice (Motor vehicle mechanic), 2nd year	10
6	National Certificate in Engineering Craft Practice (industrial electrician), 1st year	22
7	National Certificate in Engineering Craft Practice (industrial electrician), 2nd year	16
8	National Certificate in Engineering Craft Practice (Electronics), 1st year	12
9	Certificate in motor cycle and scooter repairing	21
10	National Certificate in Engineering Craft Practice (Gas and Arc welder)	16

		Number Trained
11	Electrician, level 4	23
12	Construction site supervisor	45
13	National Certificate in English for commerce and further education	29
14	National certificate in accounting technicians	40
15	National certificate in type setting, shorthand and computing (Sinhala)	23
16	National certificate in Korean language	3
17	CAA	22
18	ICT technician	30
19	National certificate in engineering draughtsman	59
20	Assistant quantity surveyor	24
21	NCT-civil- 1st year (PT)	61
22	NCT-civil- 2nd year (PT)	23
23	NCT-civil- 3rd year (PT)	29
24	NCT-QS- 2nd year (PT)	11
25	NCT-QS- 3rd year (PT)	11
26	NCT-ME- 3rd year (PT)	9
27	NCT-Electrical and electronic engineering -1st year	32
28	NCT-Electrical and electronic engineering -3rd year	8
29	Diploma in construction technology (L5)	18
30	Diploma in Ref and Air Technology (L5)	38
31	Diploma in farm machinery technology (L5)	33
32	Diploma in QS technology (L5)	57
33	Diploma in ICT (L5)	18
34	Total output in 2015	833

Source: Director, College of Technology, Anuradhapura

5.4. Teaching, Learning and Assessment Resources

We also obtained data from the training providers in the quality and relevance of the training programmes using a 5-point Likert scale. Table 5.9 summarizes the responses of all institutes on the quality and relevance of training programmes. The responses can be summarized as following:

a. Most institutes, average, believe that there is no shortage of trainers or assessors in the two districts as the average score is 4.18 out of 5. Most institutes expressed that they are able to obtain the services of trainers or assessors even from the other provinces if the existing assessors/trainers in the province is not sufficient.
b. The institutes also believe that the performance of the existing trainers and assessors is also very high indicating the there is no issue with the quality of the staff.
c. The institutes also expressed that resources are adequate for theoretical training as the average score is 4.05.
d. The institutes believe that available resources and facilities are highly inadequate for practical training as the average response was 3.77. New strategies and actions will have to be designed to provide practical training to all students.
e. The in-plant or internship provided at present is vague and no very well planned according to the institutes. This is due to the fact that institutional arrangements have to be made to develop various collaborations with the industry.
f. Most institutes were of the opinion that residential facilities will have to be provided to most students for improving the quality of training.
g. As the average score on teacher-student relationship is 4.55, it is clear that teachers are able to maintain discipline and supervise students to the better satisfaction
h. Students' participation in training is not very high as the average score is 3.64. Incentives will have to be provided to enhance the leaner participation in training.
i. The average score of 4.55 indicates that most institutes agree that there is a serious need to review, revise and update curricula of most training programmes.
j. We also obtain the perception of institutes on the commitment of students for training. The average score of 3.67 indicates that most students are more interested in acquiring a certificate than actually obtaining a serious training.
k. The data also indicate that frequent revision of fee structure is required to maintain the training programmes.

l. The institutes believe that new training programmes are required in the emerging industries such as agro-processing, videography, etc.
m. The institutes are satisfied that the industry is highly satisfied with the students they train.
n. Most institutes do not have a system of tracing the part students who had completed the training and join the industry. The institutes need to establish ALUMNI associations and conduct tracer studies to trace the employment of their students and the industry satisfaction.
o. The institutes are of the opinion that number of prospective trainees are low due to the financial difficulties faced by the students. There should be bursaries or scholarships specially designed for vocational education and training institutes.
p. The institutes are also of the opinion the participation of trainees in education and practical programmes is low due to existing transport problems.

Table 5.9: Quality and Relevance of Training

Perception of Institutes	Average Score
The NVQ Trainers/Assessors in the province are adequate	4.18
Performance of level of Trainers and Assessors is very high	4.32
Physical resources for theoretical training is adequate	4.05
Resources available for practical is adequate	3.77
The courses include an internship/in-plant training	3.43
Residential facilities are adequate	2.14
There is a good interrelationship between teachers and students	4.55
Students' participation in training is high	3.64
Students are seeking a certificate rather than a proper training	3.67
There is a need to revise all curricula	4.50
There is a dire need to introduce new courses in the area	4.50
There is high acceptance of Training by the Industry	4.68
Those who got training provide adequate feedback on current status upon request	3.77
The available fee structure is adequate to cover the Institutes' expenses	2.69
The number of registrations are low due to financial difficulties face by	3.65

Perception of Institutes	Average Score
students	
Trainees find it difficult to find accommodation facilities	2.80
Students face with transportation difficulties	4.40

Note: ALikert scale ranging from 1 to 5 was used, where 1 stands for fully disagree with the statement and 5 stands for fully agree with the statement.

Source: TVET Institutions Survey in the Province

5.5. Promotional Strategy of the Institutes

Number of registration of students by institutes tend to significantly depend on the strategies and actions taken by the institutes to promote their training programmes. Table 5.10 provide the summary of the responses of all training institutes on their publicity.

a. The data indicates that most institutes are still advertising their programmes through print and electronic media.
b. The institutes rarely use posters and handbills for advertising. The use of workshops and seminars at the schools for those who have finished GCE (O/L) or GCE (A/L) is also limited.
c. The institutes also tend depend much on informal sources for raising the awareness about the courses.
d. It is very rarely that institutes get the politicians/policy makers to educate the prospective trainees on courses or programmes. Since most school leavers seek jobs from the elected politicians to local governments, provincial councils or central government, the TVEC needs to design a mechanism to educate the politicians on the existing opportunities in the TVEC institutional network as youth seek employment normally from politicians.
e. More intense participation all state institutions in raising awareness about TVEC institutes and courses will be necessary.
f. The institutes have not yet fully utilized the ICT related new methods, such as twitter, whatsap, google, etc, for advertising purposes as most institutes are not linked to an online network

Table 5.10: Media of Advertising

	Media	Average Score
1	Printed Newspapers	5.64
2	Electronic Media	6.22
3	Posters and Handbills	2.52
4	Workshops	2.60
5	State Institutes	3.95
6	Trainees	1.57
7	NGOs	5.00
8	Others	7.25

Note: A Likert scale ranging from 1 to 10 was used, where 1 stands for the most preferred media and 10 stands for least preferred media.

Source: TVET Institutions Survey in the Province

We also obtained the data on the perception of the TVET institutes on possible future promotional strategies for TVET institutes. Table 5.11 summarizes the responses of the institutes in the promotional strategies.

a. Most institutes believe that village level training programmes are required targeting both prospective students and parents.
b. It appears that the decisions of the parents significantly affect the choices that most students takes.
c. Awareness programmes about TVEC courses should also be implemented using the schools in Sri Lanka. This might require the TVEC to have a formal mechanism linking the Ministry of Education with the TVEC to get the support from the schools for awareness programmes.
d. Most institutes also believe that the Skills development Assistants working in the Divisional Secretariats can be utilized better in these promotion schemes. The TVEC might need to work closely with the District Secretariats and Divisional Secretariats to get the support for this. Existing red tape, occupational boundaries appears to be a barrier for using different state officials for this.
e. One of the key observations is that career conflicts between skills development assistants and human resource development assistants have impeded the use of these resources for promoting TVEC courses.
f. The data also indicate that programmes should be implemented to change the public attitude towards various TVET courses, as social and cultural factors tend to also

determine the choices of prospective students. For instance, there appears to be an undue demand for ICT related courses as most parents and students think that would help them to find an occupation in an office that does not demand hard labour.

Table 5.11: Promotional Strategy of VET Institutes

Perception of Institutes	Average Score
In order to increase the number of registrations village level mobile awareness programmes should be implemented	4.67
Awareness programmes should be implemented at school level for GCE(O/L) and GCE (A/L) students	4.95
New vocational training programmes should be implemented	4.71
Number of students registered for existing courses should be increased	4.43
Existing regulations and laws are a big barrier to introduce new courses	3.14
In order to widen the vocational training, public attitudes must be changed towards various vocations	4.76
Services of Skills development officers working Divisional Secretariats are currently used as career guidance service	5.00
More concrete and increased service should be obtained from the skills development officers working Divisional Secretariats	5.00

Note: A Likert scale ranging from 1 to 5 was used, where 1 stands for fully disagree and 5 stands for fully agree.
Source: TVET Institutions Survey in the Province

5.6. Analysis of the Mismatch between Training Supply and Demand for Skill Workers in the Province

In preparing a VET Plan for the NCP, it is imperative to understand whether the TVET institutes are prepared to meet the training demand in the province. It is also important to identify as to whether the institutes provides training to unnecessarily high number or whether the institutes fail to meet the demand. Analysis of the demand and supply, possible shortages or excesses based on the projected demand and supply are therefore necessary. We employed a simple Gap Analysis in which projected demand for labour and projected supply of labour is matched find out if there is a shortage of training or surplus of training. The objectives of the gap analysis are:

a. Identify if there is an excess supply of training compared to projected demand for labour in the province
b. Identify if there is shortage of training supply compared to projected demand so that institutes will have to increase the number of trainees
c. To identify if there is a demand for new courses.
d. Propose strategies and actions to address excess supply or shortage to avoid serious problems in the labour market.

We used the following simple equation to compute if there is deficit or surplus in training supply by TVET institutes in the two districts of NCP.

$$Deficit\ or\ Surplus = [Supply\ of\ Training\ by\ training\ institutes\ in\ a\ particular\ occupation] - [Demand\ for\ Labour\ by\ the\ industry\ in\ a\ particular\ of foccupation]$$

a. **Deficit:**the projected supply of training in a particular occupation is not sufficient to meet the demand for employment in that occupation within the next five years. In this instance, the TVET institutes need to increase the number of students in the particular occupation. The sign of the relevant number in the table will be negative.
b. **Surplus:** the projected supply of training in a particular occupation exceeds the demand by the industry. The sign of the number in the table will be positive. In this instance, TVET institutes will have to take appropriate measures as following:
    a. Reduce the number of trainees in that occupation
    b. Encourage trainees to find jobs in other provinces
    c. Train for the students to be able to find foreign jobs

This information is extremely important to prepare a plan of action to address training issues of the TVET institutes. We will also analyze these training supply and demand data against the number of persons that would enter the labour market during next few years. With the above objectives we can make the following observations about the demand and supply of training during the next few years.

We can summarize the overall situation in the Anuradhapura district as following as indicated in Table 5.12:

a. There appears to be deficit in training supply of the occupations, namely; bakery workers, barbers, carpenters, cashiers, electricians, goldsmiths, healthcare workers, masons, photo designers, photography, pharmacists, hotel workers, secretaries, receptionists, and rice mill machine operators
b. There is a surplus of training supply of the occupations, namely; TV/radio repairers, advertisers, aluminum fabricators, bakers, beauticians, CAA, chefs, computer operators, computer technicians, draftsman, Forman, gardener, graphic designers, hair dressers, house keepers, ICT, lathe machine operators, motor mechanics, MS office, digital printers, tailors, welders, web designers.
c. New courses are required in the following occupations; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians

We can also summarize the overall situation in the Polonnaruwa district as following as indicated in Table 5.13.

a. There appears to be deficit in training supply of the occupations, namely; TV/radio repairers, aluminum fabricators, hotel workers, beautician, CAA, cane producers, carpenters, cashiers, chefs, computer operators, computer technicians, electronic, gardeners, goldsmiths, healthcare workers, pastry cooks, rice mill machine operators, tilers
b. There is a surplus of training supply of the occupations, namely; advertisers, bakers, digital printers, electronic, ICT, machinists, motor mechanics, MS office, plumbers.
c. New courses are required in the following occupations; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians

Table 5.12: The Mismatch between Demand and Supply in Anuradhapura District

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
TV/Radio Repairers	100	9	91	280	10	270	280	11	269	280	13	267	280	15	265
Accountant	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Account assistants	0	6	-6	0	7	-7	0	8	-8	0	9	-9	0	10	-10
Advertiser	25	2	23	25	2	23	25	2	23	25	2	23	25	3	22
Aluminum workers	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Aluminum Fabricator	20		20	20		20	20		20	20		20	20		20
Baker	80	4	76	260	5	255	260	6	254	260	7	253	260	8	252
Bakery workers	0	8	-8	0	9	-9	0	10	-10	0	12	-12	0	13	-13
Barman	0	1	-1	0	1	-1	0	2	-2	0	2	-2	0	2	-2
Beautician	45	6	39	45	7	38	45	8	37	45	9	36	45	10	35
Bell Boy	0	1	-1	0	2	-2	0	2	-2	0	2	-2	0	2	-2
Bite producers	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
CAA	250	5	245	400	6	394	400	7	393	400	8	392	400	9	391
Cane production	0	5	-5	0	5	-5	0	6	-6	0	7	-7	0	8	-8
Cap production	0	1	-1	0	1	-1	0	1	-1	0	1	-1	0	2	-2
Carpenter	0	19	-19	0	22	-22	0	25	-25	0	29	-29	0	33	-33
Cashier	0	4	-4	0	5	-5	0	6	-6	0	6	-6	0	7	-7
Chef	30	10	20	30	11	21	30	13	17	30	15	15	30	18	12
Computer operators	90	17	73	90	19	71	90	22	68	90	26	64	90	30	60
Computer technician	135	4	131	325	5	320	330	6	324	335	7	328	335	8	327
Computer networking	30		30	30		30	30		30	30		30	30		30
Cushion workers	0	3	-3	0	4	-4	0	4	-4	0	5	-5	0	6	-6
Digital Printer	0	2	-2	0	2	-2	0	3	-3	0	3	-3	0	4	-4
Draftsman	20	0	20	20	0	20	20	0	20	20	0	20	20	1	19
Electrician	120	12	108	300	13	287	300	15	285	300	18	282	300	20	280
Electronic	0	12	-12	0	7	-7	0	11	-11	0	10	-10	0	9	-9
Engineering servicemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
English (general)	200	0	200	200	0	200	200	0	200	200	0	200	200	0	200
Fiber glass workers	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	1	-1
Forman	30	2	28	30	2	28	30	3	27	30	3	27	30	4	26
Front Office Supervisor	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Gardner	20	4	16	20	5	15	20	6	14	20	6	14	20	7	13

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Glass cutters	0	1	-1	0	2	-2	0	2	-2	0	2	-2	0	2	-2
Graphic designers	70	4	66	75	6	69	75	5	70	75	4	71	75	9	66
Gold jewelry creative designers	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Goldsmith	0	6	-6	0	7	-7	0	9	-9	0	10	-10	0	11	-11
Hair dressers	190		190	190	0	190	190		190	190		190	190		190
Handloom machine operator	0	1	-1	0	1	-1	0	2	-2	0	2	-2	0	2	-2
Health Service Assistance	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Health Service Nurse	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Hotel Manager	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Housekeeper	20	4	16	200	4	196	200	5	195	200	6	194	200	7	193
Housekeeping Supervisor	0	1	-1	0	1	-1	0	1	-1	0	1	-1	0	1	-1
HR Manager	20		20	200		200	200		200	200		200	200		200
ICT	125	3	122	125	3	122	125	4	121	125	4	121	125	5	120
Laboratory technician	0	1	-1	0	1	-1	0	1	-1	0	1	-1	0	1	-1
Lathe machine workers	20	2	18	200	2	198	200	3	197	200	3	197	200	3	197
Laundry Supervisor	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Laundryman	0	2	-2	0	3	-3	0	3	-3	0	3	-3	0	4	-4
Leaf-spring producers	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Machine Operator	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Machinist	0		0	0		0	0		0	0		0	0		0
Mason	25	21	4	25	24	1	25	28	-3	25	32	-7	25	37	-12
Motor bike and three wheeler Mechanic	165	1	164	165	1	164	165	1	164	165	2	163	165	2	163
Motor mechanic	132	11	121	272	12	260	272	14	258	272	16	256	272	19	253
Motor Technician	0	2	-2	0	2	-2	0	2	-2	0	2	-2	0	3	-3
Motor Vehicle Painter	0	2	-2	0	2	-2	0	3	-3	0	3	-3	0	4	-4
MS office	110		110	115		115	130		130	140		140	150		150
Night auditor	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Optician	0	1	-1	0	1	-1	0	1	-1	0	1	-1	0	1	-1

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Pastry Cook	0	2	-2	0	2	-2	0	2	-2	0	2	-2	0	3	-3
Pharmacist	0	7	-7	0	8	-8	0	10	-10	0	11	-11	0	13	-13
Photographer	0	3	-3	0	4	-4	0	4	-4	0	5	-5	0	6	-6
Photographic designers	0	1	-1	0	1	-1	0	1	-1	0	2	-2	0	2	-2
Plumber	0	1	-1	0	1	-1	0	2	-2	0	2	-2	0	2	-2
Pool attendant	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	1	-1
Project Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Supervisor	0	1	-1	0	1	-1	0	1	-1	0	2	-2	0	2	-2
Quantitative Surveyor	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Receptionist	0	3	-3	0	3	-3	0	4	-4	0	4	-4	0	5	-5
Restaurant Supervisor	0	3	-3	0	4	-4	0	4	-4	0	5	-5	0	6	-6
Rice mill workers	0	27	-27	0	31	-31	0	36	-36	0	41	-41	0	47	-47
Room Boy	20	8	12	20	10	10	20	11	9	20	13	7	20	15	5
Security Guard	0	2	-2	0	2	-2	0	2	-2	0	3	-3	0	3	-3
Sticker & Digital Printer	30	2	28	30	2	28	30	3	27	30	3	27	30	4	26
Tailor	80	8	72	260	9	251	260	10	250	260	12	248	260	13	247
Tiler	25			25			25			25			25		
Vehicle Service Technician	0	4	-4	0	5	-5	0	5	-5	0	6	-6	0	7	-7
Waiters	30	12	18	30	14	16	30	16	14	30	18	12	30	21	9
Web designing	40		40	50		50	50		50	50		50	50		50
Welder	42	17	25	212	19	193	212	22	190	212	26	186	212	30	182
Wood craft designers	0	1	-1	0	1	-1	0	2	-2	0	2	-2	0	2	-2

Note: S = Supply of Training; D = Demand for labour; G = Gap (shortage or excesses of labour)

Table 5.13: The Mismatch between Demand and Supply in Polonnaruwa District

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
TV/Radio Repairers	35	6	29	35	14	21	35	22	13	35	32	3	35	43	-8
Accountant	40	2	38	40	5	35	40	8	32	40	12	28	40	16	24
Account assistants	0	3	-3	0	6	-6	0	9	-9	0	13	-13	0	18	-18
Advertiser	0	1	-1	0	3	-3	0	4	-4	0	6	-6	0	8	-8
Aluminum Fabricator	0	3	-3	0	6	-6	0	9	-9	0	13	13	0	18	18
Aluminum workers	0	1	-1	0	3	-3	0	5	-5	0	7	-7	0	9	-9
Baker	30	2	28	30	5	25	30	8	22	30	12	18	30	16	14
Bakery workers	0	1	-1	0	2	-2	0	4	-4	0	5	-5	0	7	-7
Barman	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6
Beautician	0	6	-6	0	12	12	0	20	20	0	28	28	0	38	38
Bell Boy	0	1	-1	0	3	-3	0	5	-5	0	7	-7	0	9	-9
Bite producers	0	1	-1	0	2	-2	0	4	-4	0	5	-5	0	7	-7
CAA	0	2	-2	0	4	-4	0	7	-7	0	10	10	0	13	13
Cane production	0	2	-2	0	4	-4	0	6	-6	0	8	-8	0	11	11
Cap production	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpenter	15	20	-5	15	43	28	15	69	54	15	99	84	15	3	8
Cashier	0	3	-3	0	6	-6	0	10	10	0	14	14	0	19	19
Chef	0	7	-7	0	15	15	0	23	23	0	33	33	0	45	45
Computer operators	0	3	-3	0	7	-7	0	12	12	0	17	17	0	23	23
Computer technician	0	3	-3	0	6	-6	0	9	-9	0	13	13	0	18	18
Computer networking	20	0	20	20		20	20		20	20		20	20		20
Cushion workers	0	1	-1	0	3	-3	0	4	-4	0	6	-6	0	8	-8
Digital Printer	40	1	39	40	3	37	40	4	36	40	6	34	40	8	32
Draftsman	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6
Electrician	35	7	28	35	14	21	35	23	12	35	33	2	35	44	-9
Electronic	40	8	32	40	7	33	40	9	31	40	10	30	40	12	28
Engineering servicemen	0	4	-4	0	5	-5	0	3	-3	0	8	-8	0	2	-2
English (general)	40	0	40	40		40	40		40	40		40	40		40
Fiber glass workers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foreman	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6
Front Office Supervisor	0	2	-2	0	3	-3	0	5	-5	0	7	-7	0	10	10
Gardner	0	0	0	0	1	-1	0	2	-2	0	2	-2	0	3	-3
Glass cutters	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	2	-2
Graphic designers	0		0	0		0	0		0	0		0	0		0

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Gold jewelry creative designers	0	1	-1	0	1	-1	0	2	-2	0	3	-3	0	4	-4
Goldsmith	0	2	-2	0	5	-5	0	8	-8	0	12	12	0	16	16
Hair dressers	0	10	-10	0	14	14	0	15	15	0	10	10	0	12	12
Handloom machine operator	0	0	0	0	1	-1	0	2	-2	0	2	-2	0	3	-3
Health Service Assistance	0	2	-2	0	3	-3	0	5	-5	0	7	-7	0	10	10
Health Service Nurse	0	5	-5	0	11	11	0	18	18	0	25	25	0	34	34
Hotel Manager	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6
Housekeeper	0	2	-2	0	3	-3	0	5	-5	0	7	-7	0	10	10
Housekeeping Supervisor	0	1	-1	0	3	-3	0	4	-4	0	6	-6	0	8	-8
HR Manager	0	0	0	0		0	0		0	0		0	0		0
ICT	0	0	330	355	1	4	0	1	9	5	1	4	0	2	8
Laboratory technician	0	1	-1	0	1	-1	0	2	-2	0	3	-3	0	4	-4
Lathe machine workers	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	2	-2
Laundry Supervisor	0	2	-2	0	5	-5	0	7	-7	0	10	10	0	14	14
Laundryman	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6
Leaf-spring producers	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	2	-2
Machine Operator	0	2	-2	0	5	-5	0	7	-7	0	10	10	0	14	14
Machinist	40	5	35	40	4	36	40	6	34	40	7	33	40	9	31
Mason	60	22	38	60	48	12	60	78	18	60	2	52	60	1	91
Motor bike and three wheeler mechanic	0	12	-12	0	15	15	0	17	17	0	10	10	0	12	12
Motor mechanic	40	2	38	40	4	36	40	6	34	40	9	31	40	12	28
Motor Technician	0	1	-1	0	2	-2	0	4	-4	0	5	-5	0	7	-7
Motor Vehicle Painter	0	2	-2	0	4	-4	0	6	-6	0	8	-8	0	11	-11
MS Office	150		150	150		150	200		200	200		200	300		300
Night auditor	0	1	-1	0	3	-3	0	4	-4	0	6	-6	0	8	-8
Optician	0	1	-1	0	2	-2	0	4	-4	0	5	-5	0	7	-7
Pastry Cook	0	3	-3	0	6	-6	0	10	10	0	15	15	0	20	20
Pharmacist	0	2	-2	0	5	-5	0	7	-7	0	10	10	0	14	14
Photographer	0	3	-3	0	6	-6	0	10	10	0	14	14	0	19	19
Photographic designers	0	1	-1	0	1	-1	0	2	-2	0	3	-3	0	4	-4
Plumbers	15	0	15	15	1	14	15	2	13	15	2	13	15	3	12
Pool attendant	0	0	0	0	1	-1	0	2	-2	0	2	-2	0	3	-3

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Project manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Supervisor	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	5	-5
Quantitative Surveyor	0	1	-1	0	1	-1	0	2	-2	0	3	-3	0	4	-4
Receptionist	0	1	-1	0	3	-3	0	4	-4	0	6	-6	0	8	-8
Restaurant Supervisor	0	2	-2	0	4	-4	0	6	-6	0	9	-9	0	12	12
Rice mill workers	0	27	-27	0	58	58	0	94	94	0	5	5	0	2	2
Room Boy	0	2	-2	0	4	-4	0	7	-7	0	10	10	0	13	13
Security Guard	0	3	-3	0	7	-7	0	11	11	0	16	16	0	21	21
Sticker & Digital Printer	0	3	-3	0	6	-6	0	9	-9	0	13	13	0	18	18
Tailor	25	8	17	25	16	9	25	27	-2	25	38	13	25	52	27
Tiler											25			25	
Vehicle Service Technician	0	3	-3	0	7	-7	0	11	11	0	16	16	0	21	21
Waiters	0	3	-3	0	7	-7	0	11	11	0	16	16	0	21	21
Web designing	0	0	0	0		0	0		0	0		0	0		0
Welder	35	7	28	35	16	19	35	26	9	35	37	-2	35	50	15
Wood craft designers	0	1	-1	0	2	-2	0	3	-3	0	4	-4	0	6	-6

Note: S = Supply of Training; D = Demand for labour; G = Gap (shortage or excesses of labour)

Table 5.14: The Mismatch between Demand and Supply in NCP

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
TV/Radio Repairers	135	15	120	5	24	1	5	33	282	5	45	0	5	58	7
Accountant	40	5	35	40	8	32	40	12	28	40	16	24	40	21	19
Account assistants	0	9	-9	0	13	13	0	17	-17	0	22	22	0	28	28
Advertiser	25	3	22	25	5	20	25	6	19	25	8	17	25	11	14
Aluminum Fabricator	20	0	20	20	0	20	20	0	20	20	0	20	20	0	20
Aluminum workers	0	3	-3	0	5	-5	0	7	-7	0	10	10	0	12	12
Baker	110	6	104	0	10	0	0	14	276	0	19	1	0	24	6
Bakery workers	0	9	-9	0	11	11	0	14	-14	0	17	17	0	20	20
Barman	0	2	-2	0	3	-3	0	5	-5	0	6	-6	0	8	-8
Beautician	45	12	33	45	19	26	45	28	17	45	37	8	45	48	-3
Bell Boy	0	2	-2	0	5	-5	0	7	-7	0	9	-9	0	11	11
Bite producers	0	4	-4	0	5	-5	0	8	-8	0	9	-9	0	12	12
CAA	250	7	243	0	10	0	0	14	386	00	18	2	0	22	8
Cane production	0	7	-7	0	9	-9	0	12	-12	0	15	15	0	19	19
Cap production	0	1	-1	0	1	-1	0	1	-1	0	1	-1	0	2	-2

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Carpenter	15	39	-24	15	65	50	15	94	-79	15	8	3	15	6	1
Cashier	0	7	-7	0	11	11	0	30	-30	0	20	20	0	26	26
Chef	30	17	13	30	26	4	30	12	18	30	48	18	30	63	33
Computer operators	90	20	70	90	26	64	90	34	56	90	43	47	90	53	37
Computer technician	135	7	128	5	11	4	0	15	315	5	20	5	5	26	9
Computer networking	50	0	50	50	0	50	50	0	50	50	0	50	50	0	50
Cushion workers	0	4	-4	0	7	-7	0	8	-8	0	11	11	0	14	14
Digital Printer	40	3	37	40	5	35	40	7	33	40	9	31	40	12	28
Draftsman	20	1	19	20	2	18	20	3	17	20	4	16	20	7	13
Electrician	155	19	136	5	27	8	5	38	297	5	51	4	5	64	1
Electronic	40	20	20	40	14	26	40	20	20	40	20	20	40	21	19
Engineering servicemen	0	4	-4	0	5	-5	0	3	-3	0	8	-8	0	2	-2
English (general)	240	0	240	0	0	0	0	0	240	0	0	0	0	0	0
Fiber glass workers	0	0	0	0	1	-1	0	1	-1	0	1	-1	0	1	-1
Foreman	30	3	27	30	4	26	30	6	24	30	7	23	30	10	20
Front Office Supervisor	0	5	-5	0	6	-6	0	9	-9	0	11	11	0	15	15
Gardner	20	4	16	20	6	14	20	8	12	20	8	12	20	10	10
Glass cutters	0	1	-1	0	3	-3	0	3	-3	0	3	-3	0	4	-4
Graphic designers	70	4	66	75	6	69	75	5	70	75	4	71	75	9	66
Gold jewelry creative designers	0	3	-3	0	3	-3	0	4	-4	0	6	-6	0	7	-7
Goldsmith	0	8	-8	0	12	12	0	17	-17	0	22	22	0	27	27
Hair dressers	190	10	180	0	14	6	0	15	175	0	10	0	0	12	8
Handloom machine operator	0	1	-1	0	2	-2	0	4	-4	0	4	-4	0	5	-5
Health Service Assistance	0	4	-4	0	5	-5	0	7	-7	0	10	10	0	13	13
Health Service Nurse	0	7	-7	0	13	13	0	20	-20	0	28	28	0	37	37
Hotel Manager	0	4	-4	0	5	-5	0	7	-7	0	8	-8	0	11	11
Housekeeper	20	6	14	0	7	3	0	10	190	0	13	7	0	17	3
Housekeeping Supervisor	0	2	-2	0	4	-4	0	5	-5	0	7	-7	0	9	-9
HR Manager	20	0	20	0	0	0	0	0	200	0	0	0	0	0	0
ICT	455	3	452	0	4	6	5	5	500	30	5	5	5	7	8
Laboratory technician	0	2	-2	0	2	-2	0	3	-3	0	4	-4	0	5	-5
Lathe machine workers	20	2	18	0	3	7	0	4	196	0	4	6	0	5	5
Laundry Supervisor	0	5	-5	0	8	-8	0	11	-11	0	14	14	0	19	19
Laundryman	0	3	-3	0	5	-5	0	6	-6	0	7	-7	0	10	10
Leaf-spring producers	0	2	-2	0	3	-3	0	3	-3	0	4	-4	0	5	-5

Occupation	2016			2017			2018			2019			2020		
	S	D	G	S	D	G	S	D	G	S	D	G	S	D	G
Machine Operator	0	5	-5	0	8	-8	0	11	-11	0	14	14	0	19	19
Machinist	40	5	35	40	4	36	40	6	34	40	7	33	40	9	31
Mason	85	43	42	85	72	13	85	6	-21	85	4	59	85	8	3
Motor bike and three wheeler mechanic	165	13	152	5	16	9	5	18	147	5	12	3	5	14	1
Motor mechanic	172	13	159	2	16	6	2	20	292	2	25	7	2	31	1
Motor Technician	0	3	-3	0	4	-4	0	6	-6	0	7	-7	0	10	10
Motor Vehicle Painter	0	4	-4	0	6	-6	0	9	-9	0	11	11	0	15	15
MS Office	260	0	260	5	0	5	0	0	330	0	0	0	0	0	0
Night auditor	0	4	-4	0	6	-6	0	8	-8	0	10	10	0	13	13
Optician	0	2	-2	0	3	-3	0	5	-5	0	6	-6	0	8	-8
Pastry Cook	0	5	-5	0	8	-8	0	12	-12	0	17	17	0	23	23
Pharmacist	0	9	-9	0	13	13	0	17	-17	0	21	21	0	27	27
Photographer	0	6	-6	0	10	10	0	14	-14	0	19	19	0	25	25
Photographic designers	0	2	-2	0	2	-2	0	3	-3	0	5	-5	0	6	-6
Plumbers	15	1	14	15	2	13	15	4	11	15	4	11	15	5	10
Pool attendant	0	0	0	0	2	-2	0	3	-3	0	3	-3	0	4	-4
Project manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Supervisor	0	2	-2	0	3	-3	0	4	-4	0	6	-6	0	7	-7
Quantitative Surveyor	0	3	-3	0	3	-3	0	4	-4	0	6	-6	0	7	-7
Receptionist	0	4	-4	0	6	-6	0	8	-8	0	10	10	0	13	13
Restaurant Supervisor	0	5	-5	0	8	-8	0	10	-10	0	14	14	0	18	18
Rice mill workers	0	54	-54	0	89	89	0	0	130	0	6	6	0	9	9
Room Boy	20	10	10	20	14	6	20	18	2	20	23	-3	20	28	-8
Security Guard	0	5	-5	0	9	-9	0	13	-13	0	19	19	0	24	24
Sticker & Digital Printer	30	5	25	30	8	22	30	12	18	30	16	14	30	22	8
Tailor	105	16	89	5	25	0	5	37	248	5	50	5	5	65	0
Tiler		25			25			25			25			25	
Vehicle Service Technician	0	7	-7	0	12	12	0	16	-16	0	22	22	0	28	28
Waiters	30	15	15	30	21	9	30	27	3	30	34	-4	30	42	12
Web designing	40	0	40	50	0	50	50	0	50	50	0	50	50	0	50
Welder	77	24	53	7	35	2	7	48	199	7	63	4	7	80	7
Wood craft designers	0	2	-2	0	3	-3	0	5	-5	0	6	-6	0	8	-8

Note: S = Supply of Training; D = Demand for labour; G = Gap (shortage or excesses of labour)

Table 5.15 gives clear picture on the demand, supply, shortages and surpluses during the next five years. This is extremely helpful for the institutes to plan their training supply in the next few years:

a. Negative numbers in the table indicates that the total supply of training in a given occupation during the five year period is not sufficient to meet the demand for trained persons in that occupation during that period. In these cases, TVET institute should take action to increase the number of students for such training programmes.
b. The positive numbers indicate that the TVET institutes will be training and supplying more than the number required by a particular occupation to the province. In such instances
    a. The TVET institutes should reduce the number of students or
    b. Train them to seek employment in other provinces or
    c. Train them for other countries to avoid unemployment of skilled workers. Proficiency in foreign languages will be required in this case so that curriculum needs to have foreign language training components

Table 5.15: The Mismatch between Demand and Supply in NCP, 2016-2020

Occupation	Total Training Supply	Total New Demand	Shortage (-) /Excess (+)
TV/Radio Repairers	1395	175	1220
Accountant	200	62	138
Account assistants	0	89	-89
Advertiser	125	33	92
Aluminum Fabricator	0	69	-69
Aluminum workers	0	37	-37
Agricultural sales assistants	180	-	-
Baker	1270	73	1197
Bakery workers	0	71	-71
Barbender	-	125	-
Barman	0	24	-24
Beautician	225	144	81
Bell Boy	0	34	-34
Bite producers	0	38	-38
CAA	1850	71	1779
Cane production	0	62	-62

Occupation	Total Training Supply	Total New Demand	Shortage (-) /Excess (+)
Cap production	0	6	-6
Carpenter	75	492	-417
Cashier	0	80	-80
Chef	150	190	-40
Computer operators	450	176	274
Computer technician	1460	79	1381
Computer networking	250	0	250
Cushion workers	0	44	-44
Digital Printer	200	36	164
Draftsman	100	17	83
Electrician	1495	199	1296
Electronic	200	95	105
Engineering servicemen	0	22	-22
English (general)	1200	0	1200
Fiber glass workers	0	4	-4
Foreman	150	30	120
Front Office Supervisor	0	46	-46
Gardner	100	36	64
Glass cutters	0	14	-14
Graphic designers	370	28	342
Gold jewelry creative designers	0	23	-23
Goldsmith	0	86	-86
Hair dressers	950	71	879
Handloom machine operator	0	16	-16
Health Service Assistance	0	39	-39
Health Service Nurse	0	105	-105
Hotel Manager	0	35	-35
Housekeeper	820	53	767
Housekeeping Supervisor	0	27	-27
HR Manager	820	0	820
ICT	2525	24	2501
Laboratory technician	0	16	-16
Lathe machine workers	820	18	802
Laundry Supervisor	0	57	-57
Laundryman	0	31	-31
Leaf-spring producers	0	17	-17
Machine Operator	0	57	-57

Occupation	Total Training Supply	Total New Demand	Shortage (-) /Excess (+)
Machinist	200	31	169
Mason	425	553	-128
Motor bike and three wheeler mechanic	825	73	752
Motor mechanic	1420	105	1315
Motor Technician	0	30	-30
Motor Vehicle Painter	0	45	-45
MS Office	1645	0	1645
Night auditor	0	41	-41
Optician	0	24	-24
Painter		125	
Pastry Cook	0	65	-65
Pharmacist	0	87	-87
Photographer	0	74	-74
Photographic designers	0	18	-18
Plumbers	75	16	59
Pool attendant	0	12	-12
Project manager	0	0	0
Project Supervisor	0	22	-22
Quantitative Surveyor	0	23	-23
Receptionist	0	41	-41
Restaurant Supervisor	0	55	-55
Rice mill workers	0	678	-678
Room Boy	100	93	7
Security Guard	0	70	-70
Sticker & Digital Printer	150	63	87
Tailor	1245	193	1052
Tiler		125	
Vehicle Service Technician	0	85	-85
Waiters	150	139	11
Web designing	240	0	240
Welder	1065	250	815
Wood craft designers	0	24	-24

Chapter 06
Recommendations and an Action Plan

Based on the analysis of data in different chapters of this report, we will make general as well as specific recommendations. In implementing a comprehensive strategy to develop vocational education and training in the NCP, specific actions will have to be taken. Actual implementation of these actions require commitment by TVEC as well as various other state institutions.

6.1.Recommendations on Labour Force Data

The analysis of the labour market trends leads to the conclusion that the TVEC must maintain a comprehensive labour force database with respect to each district and make those data available to training supply institutes. This database can be made available online for the use of the training institutes. A lack of a comprehensive labour force data set has made it difficult for the training institutes to decide on the number of prospective students for each course. The database should include information on:

- A regulatory and a policy framework need to be created to establish a formal cooperation mechanism among general education, higher education and vocational education.
- Since the registration of large number of Bachelor of Arts external degree students in state universities has seriously negatively affected the demand for TVET courses and created serious imbalance in the labour market, the legal measures should be taken to limit the number of external degree graduates.
- In order to reduce the use of unskilled and semi-skilled persons by the employers, legal measures should be taken to make it sure that all employers maintain a significant share of NVQ qualified persons in their workforce in all establishments.
- Introduce a grading system for each occupation to separate highest qualified workers from least qualified workers through a licensing system for the service receivers to identify the quality of workers as a way of standardization.

- Introduce laws to prohibit the use of trainees as a substitute for permanent workforce as employers appear to run their institutions by using trainees due to very low costs and to avoid paying taxes/EPF/ETF.
- A legal framework should be created to introduce minimum age limits to three wheeler taxi drivers as most youth become three wheeler taxi drivers rather than obtaining an NVQ qualification
- A permanent cooperation should be established between UGC, NEC, and TVEC through a legal mechanism.
- Limit the presence of private higher education institute which offer courses for those who seek office-oriented occupations rather than vocational education to enhance the demand for TVET courses and to reduce the excess demand for office oriented occupations redressing the problem of labour market imbalances.
- Labour force data of each DS division for at least last five years to assist identify trends and patterns in collaboration with the Department of Census and Statistics
- Data on persons pursuing study programmesafter GCE (O/L) or GCE (A/L) in various other higher education institutes after failing to enter a state University.
- Data on persons pursuing external degrees after failing to enter a state University after GCE (A/L).
- Data on number of persons sitting for GCE (O/L) or GCE (A/L) for the second or third times.
- Number of persons migrating after GCE (O/L) or GCE (A/L) for the other provinces of the country.
- Number of persons migrating after GCE (O/L) or GCE (A/L) for the other countries.
- Number of persons directly entering for employment after GCE (O/L) or GCE (A/L) without pursuing further studies in vocational education or otherwise.
- Data on the number of persons obtaining informal on the job vocational training in the industry.

6.2.Recommendations on Skills Training to Livelihood Occupants

The analysis in Chapter 3 leads to a number of recommendations to be implemented for improving skills. The future actions should also take in to account of the fact that livelihood occupations are so diverse that common skills development courses or programme are not at

all feasible. Customized skills training programmes are required for each type of occupation/activity. The training programmes should also take in to account of the fact that it is a misnomer to conclude that all those who are involved in various livelihood occupations have the potential to advance into higher or profitable business ventures if training or financial support is given. Most livelihood occupants appears to be engaged in them as survival strategies.

- Reduce the number of awareness raising type of training programmes and provide specific business/activity/occupation oriented skills training
- Plan and provide skills development courses to livelihood occupants as specified in Table 3.4
- The area specialists should be used in the training programmes rather than using mere state officials for imparting knowledge on entrepreneurship development.
- As most livelihood occupants are unable to spend a day or few days for training due to survival problems, alternative strategies should be explored for implementation such as field-based training, visit-business/home training, and mobile trainers.
- TVEC should explore the possibility of establishing business incubation centres at regional level in collaboration with other state institutes.
- Establishment proposed University Campuses targeting GCE (A/L) technology stream students is also essential.
- Participation of livelihood occupants in the planning process of skills development courses should be explored and implemented.
- Livelihood skills development courses should also take in to account of traditional/indigenous knowledge/skills in designing courses
- Most state training programmes have failed because they only impart general knowledge about various occupations/business/entrepreneurship. Such training programmes should be halted.
- The TVEC should also have a mechanism to identify potential livelihood occupants who have the potential to improve and develop their business into a more sustainable level as most livelihood occupants are engaged in it for mere survival until finding a stable source of income.

6.3.Recommendations on Improving the Quality and Relevance of Training programmes

This is based on Tables 4.1 - 4.10.

- Create a common regulatory mechanism for all state and non-state institutes which provide vocational education and training.
- Take measures to certify and maintain the quality of the programmes offered by all non-sate institute on a mandatory basis as employers believe the quality of these programmes are very low.
- Implement NVQ to all vocational education and training courses offered by all state and non-state institutions on a mandatory basis as current voluntary arrangement is not sufficient.
- A licensing system should be introduced for all institutes that provide vocational education and training to assure the quality.
- All programmes should include courses or components of courses to change attitudes of students to seek non-white color jobs in the industry
- Take measures to eliminate all non-NVQ courses as their quality is very low
- Practical training should be enhanced and regularized
- Embed properly planned internships to all courses.
- Industry-based training should be regularized and enhanced.
- As most business enterprises tend to rely on trainees for running their business, actions and mechanisms should be created for the industry to use NVQ-qualified workers.

6.4.Recommendation on Increasing Student Intake for Training Institutes and Develop Vocational Education and Training in the Province

These recommendations are emanating from the analysis in Chapter 4 and Chapter 5 of this report.

- All institutes should match their training supply data with the future demand data provided in table 4.19.

- There is a shortage of TVET institutions in some DS divisions such as Padiviya, Kebithogollewa, Mahavilachchiya, Medavachchiya, Rajanganaya, and Thalawa (Table 5.1 and 5.2). New training centers according to the demand need to be established in these DV divisions.
- As there is no sufficient number of students in some training centers, pooling and clustering of the existing institutes/centers seems also required.
- Centers/institutes should be established adequately in Polonnaruwa district which offer courses for NVQ 5 and 6.
- Scholarships/bursaries should be introduced to increase the number of students
- New courses/programmes should be introduce to cater to regional needs such as rice mill machine operators, rice mill machine equipment producers and repairers, manufacturing of machines and equipment required for agriculture and post-harvest technology, skills and knowhow required for post-harvest business processing, food processing technology, developing and manufacturing new agro-based products.
- Increase resources and facilities to all institutes for providing inadequate practical training.
- Internal quality assurance units should be established in all institutes/centers.
- Resources as well as institutional arrangements including industry collaborations should be developed for in-plant training and internships as the existing ones are not sufficient.
- Provide residential facilities to most students to encourage students' participation in training.
- Curricula of all programmes should be reviewed and revised on a frequent and continuous basis to address the changing nature of industry and technology.
- Courses should be introduced to change the attitudes of the students towards learning commitment, and the choice of jobs after completing training.
- A mechanism and formula should be designed to frequently revise fee structure and state funding is required for most students.
- New training programmes are required in the emerging industries such as agro-processing, videography, etc.
- The institutes need to establish ALUMNI associations and conduct tracer studies to trace the employment of their students and the industry satisfaction.

- All institutes should conduct employer satisfaction surveys and use the outcomes for upgrading the teaching learning process.
- Training institutes should be encouraged to used modern methods such as posters and handbills for advertising and ICT for advertising their programmes.
- Regular workshops and seminars should be organized at the schools for those who have finished GCE (O/L) or GCE (A/L) in a formal collaboration with the Ministry of Education.
- TVEC should have a mechanism to obtain the services of politicians/policy makers to educate the prospective trainees on courses or programmes as most persons seek employment from politicians.
- Village or community level awareness programmes should be conducted to promote courses
- Awareness programmes are also required for parents as their decisions seriously affect the choices of students.
- Awareness programmes about TVEC courses should also be implemented using the schools in Sri Lanka. This might require the TVEC to have a formal mechanism linking the Ministry of Education with the TVEC to get the support from the schools for awareness programmes.
- The Skills development Assistants working in the Divisional Secretariats can be utilized better in promotional schemes. The TVEC might need to work closely with the District Secretariats and Divisional Secretariats to get the support for this. Existing red tape, occupational boundaries appears to be a barrier for using different state officials for this.
- Career conflicts between skills development assistants and human resource development assistants working DS offices should be resolved.
- Programmes should be implemented to change the public attitude towards various TVET courses, as social and cultural factors tend to also determine the choices of prospective students.
- In Anuradhapura district, training supply should be increased in such occupations as; bakery workers, barbers, carpenters, cashiers, electricians, goldsmiths, healthcare workers, masons, photo designers, photography, pharmacists, hotel workers, secretaries, receptionists, and rice mill machine operators.

- In Anuradhapura district, there is a surplus of training supply of the occupations, namely; TV/radio repairers, advertisers, aluminum fabricators, bakers, beauticians, CAA, chefs, computer operators, computer technicians, draftsman, Forman, gardener, graphic designers, hair dressers, house keepers, ICT, lathe machine operators, motor mechanics, MS office, digital printers, tailors, welders, web designers. Either the supply of training should be reduced in these categories or promote foreign employment for those additional trainees.
- In Anuradhapura district, new courses are required in the following occupations; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians.
- In Polonnaruwa district, training supply should be increased in such occupations as; TV/radio repairers, aluminum fabricators, hotel workers, beautician, CAA, cane producers, carpenters, cashiers, chefs, computer operators, computer technicians, electronic, gardeners, goldsmiths, healthcare workers, pastry cooks, rice mill machine operators, tilers.
- In Polonnaruwa districts, training supply should be reduced in such occupations as; advertisers, bakers, digital printers, electronic, ICT, machinists, motor mechanics, MS office, plumbers, promote them to find jobs in other provinces or abroad.
- New courses should be introduced in; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians

6.5.An Action Plan, 2015-2020, for NCP

The following is detail plan of action with proposed activities for the TVEC to identify/allocate resources/fund requirement as well as assigning responsibilities to various institutions for implementing the identified activities. The objectives of these activities are also indicated.

Table 6.1: Action Plan

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
6.1	To Create a macro-policy and regulatory environment	6.1.1. Create a regulatory mechanism to establish a collaboration and joint decision making between vocational education, general education and higher education		TVEC
		6.1.2. Limit the number of external degree candidates		TVEC
		6.1.3. Make companies and employers to use NVQ qualified persons in all activities on a mandatory basis by limiting unskilled and semi-skilled labour		TVEC
		6.1.4. Establish an occupational grading system to rank highly trained (best) workers to the least trained workers to help service receivers through a Licensing System.		TVEC
		6.1.5. Introduce laws to limit the use of trainees as regular employees of institutes as a substitute of permanent employees		TVEC
		6.1.6. Introduce laws to impose an age limit to three wheeler taxi drivers as the use of three wheel taxies by the youth has created barriers for the demand for vocational education		TVEC
		6.1.7. Establish a permanent		TVEC

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		cooperation between National Education Commission, University Grants Commission and the TVEC through joint meetings of three commissioners (Chairpersons)		
		6.1.8. Create a regulatory mechanism for private higher educational institutes as most students seek qualifications in these institutes aspiring office-oriented jobs in the future which has affected the demand for TVEC courses		TVEC
6.2	To create a complete set of up-to-date information available for training institutes	6.2.1 Maintain a labour force database with respect to each Divisional Secretariat		TVEC/PC
		6.2.2 Data on persons who pursue various study programmes after GCE (O/L) and GCE (A/L) need to be available		TVEC/PC
		6.2.3 Data on persons pursuing external degrees after failing to enter a University should be maintained		TVEC/PC
		6.2.4 Number of persons migrating from the province to the other provinces and countries should be maintained		TVEC/PC
6.3	To improve the vocation	6.3.1 Reduce the number of awareness raising type of training programmes		PC/ TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
	specific skills of livelihood occupants	6.3.2 Use the area specialists rather than generalists for skills training		PC/ Tis
		6.3.3 Mobile and field based skills training programmes should be introduced		PC/ Tis
		6.3.4 Establish regional industrial/business incubation centers at DS division levels		TVEC/PC
6.4	To rationalize and increase access to vocational education and training	6.4.1 Provide scholarships and bursaries to students		TVEC
		6.4.2 Increase the number of students to demanding courses for which foreign employment opportunities are available such as		TVEC/TIs
		6.4.3 TVEC should establish at least one institution that provide courses for NVQ level 4-6 in each DS division		TVEC/TIs
		6.4.4 Develop new courses targeting foreign employment especially middle level skill workers		TIs
		6.4.5 All training institutions should be mandated to match their training with prospective demand		TVEC/TIs
		6.4.6 New training centers should be established in Padaviya, Medavachchiya, Rajanganaya, and Thalawa DS divisions in Anuradhapura district		TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		6.4.7 Pool or cluster training centers which have very small number of students		TVEC/TIs
		6.4.8 Centers should be establish to offer courses at NVQ level 5 and 6 in Polonnaruwa district		TVEC/TIs
		6.4.9 New courses/programmes should be introduced to cater to regional needs in rice mill machine operators, rice mill machine spare part producers, produce post-harvest equipment, food processing technology, bio-technology, agro-based industry technology, wood craft design technology, antique production technology		TIs
		6.4.10 In Anuradhapura district training supply should be increased in bakery, barbers, carpenters, cashiers, electricians, goldsmiths, healthcare workers, masons, photo designers, photography, pharmacists, hotel workers, secretaries, receptionists,		TIs
		6.4.11 In Anuradhapura district, there is a surplus of training supply of the occupations, namely; TV/radio repairers, advertisers, aluminum fabricators, bakers, beauticians, CAA,		TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		chefs, computer operators, computer technicians, draftsman, Forman, gardener, graphic designers, hair dressers, house keepers, ICT, lathe machine operators, motor mechanics, MS office, digital printers, tailors, welders, web designers. Either the supply of training should be reduced in these categories or promote foreign employment for those additional trainees		
		6.4.12 In Anuradhapura district, new courses are required in the following occupations; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians.		TIs
		6.4.13 In Polonnaruwa district, training supply should be increased in such occupations as; TV/radio repairers, aluminum fabricators, hotel workers, beautician, CAA, cane producers, carpenters, cashiers, chefs, computer operators, computer technicians, electronic, gardeners, goldsmiths, healthcare workers, pastry cooks, rice mill machine operators,		TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		tillers.		
		6.4.14 In Polonnaruwa districts, training supply should be reduced in such occupations as; advertisers, bakers, digital printers, electronic, ICT, machinists, motor mechanics, MS office, plumbers, promote them to find jobs in other provinces or abroad.		TIs
		6.4.15 New courses should be introduced in; wood craft designers, rice mill machine operators, agricultural equipment/machine producers, rice mill machine/equipment producers, and food processing technicians		TIs
		6.4.16 Reduce the number of students in ICT, CAA, and other		TIs
		6.3.17 Develop collaborations and relations with all state institutes that provide vocational education and training		TVEC
6.5	To improve the quality and relevance of courses	6.5.1 Implement NVQ system to all courses on a mandatory basis		TVEC
		6.5.2 Take measures to eliminate all non NVQ courses		TVEC
		6.5.3 Embed properly planned in plant training and internships to all courses		TIs
		6.5.4 Establish internal quality		TVEC/TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		assurance units in all institutes		
		6.5.5 Industry collaborations should be established to address quality problems		TVEC/TIs
		6.5.6 Curricula of all programmes should be reviewed and revised on frequent and continuous basis		TVEC/TIs
		6.5.7 Courses should be introduced to change the attitudes of the students		TVEC/TIs
		6.5.8 A mechanism should be introduced to revise fee structure on a continuous basis		TVEC/TIs
		6.5.9 All institutes should establish ALUMNI associations for industry support		TIs
		6.5.10 All institutes should conduct employer satisfaction surveys and tracer studies to understand the quality of their programmes		TIs
		6.5.11 Institutes should use modern ICT based methods for advertising		TIs
		6.5.12 Regular workshops and seminars should be conducted at schools to promote courses		TIs
		6.5.13 Politicians should be made aware of various TVEC institutes and courses so that they can educate prospective students who seek jobs		TVEC/PC/ TIs

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		6.5.14 Village and community level awareness programmes should be conducted for parents		TIs/PC
		6.5.15 Use the services of the Skills development Assistants for programme promotion		TVEC/PC
		6.4.16 Solve the career conflict problems between human resources development assistants and skills development assistants		TVEC/PC
		6.5.16 Provide key foreign languages training to all students		TVEC/TIs
6.6	To improve the quality of trainers and assessors	6.6.1 Provide mandatory life-long learning opportunities to all staff		TVEC
		6.6.2 Provide graduate/postgraduate level training to all staff		TVEC
		6.6.3 Provide international exposure to all assessors/trainers		TVEC
6.7	To create the appropriate institutional environment	6.7.1 Create a common regulatory framework		TVEC/PC
		6.7.2 Take measures to certify all vocational education and training courses on a mandatory basis		TVEC
		6.7.3 Take measures to maintain the quality of the programmes offered by non-state institutions		TVEC
		6.7.4 A skill licensing system should be introduced to all vocational		TVEC/PC

	Objectives	Activity	Resources or Funds Required	Institution Responsible for Implementation
		courses/occupations		
		6.7.5 Create an inter-institution and inter-ministerial collaboration mechanism for information and resources sharing and exchange through enforceable legal framework		TVEC/TIs
6.8	Regulate and standardize all skilled worker categories and training institutes	6.8.1 Each occupation should be standardized through a licensing system to ensure the quality of service of persons with different levels of training		TVEC/PC
		6.8.2 Regulate all vocational education and training institutes through a new Vocational Education and Training act similar to general and higher education		TVEC/PC
		6.8.3 Make NVQ mechanism mandatory for all state and non-state training institutes		TVEC
		6.8.4 Increase the mandate of the TVEC to capture vocational education and training provided by all state institutions		TVEC
		6.8.5 All public contractors should be compelled to use NVQ qualified skilled workers in all government projects		TVEC

6.6.Limitations

The analysis as well as the recommendations are subject to the following limitations. These limitations should not be taken as weaknesses in the work as any scientific prediction as well as policy framework is subject to these limitations given the fact that a lack of perfect information, risks about the future, uncertainty of future outcomes, changing industry and social dynamics, and rapid change of technology tend to change the predictions, policies, and actions proposed for the future.

The results as well as recommendations of this are valid subject to the following limitations:

a. Economic predictions are affected by various risks and uncertainties. Forecasting generally uses the situation in more recent past and present as its basis as there is no any other feasible option except astrology. Scientific economic forecasting normally includes the effects of the leading economic indicators and other complex economic/social data. This overall prediction uses the crucial assumption that the history repeats itself so that history can predict the future. If the conditions of the economy, society, technology, and political system change unexpectedly, these predictions become less accurate. This is not to undervalue the role of forecasting. We need to use the predicted information with caution so that we can make a minimum future expectation.

b. Prediction of labour force trends in the province was affected by lack of accurate information on district basis on the labour force growth rate, nature of its growth, what kind of choices are made by all those who fail GCE (O/L) or GCE (A/L) to identify whether they all enter the labor force so that they will be the seekers of various courses available through the TVEC institutional network. Therefore, the prediction should be used for practice with $\pm 10\%$ error and omissions due to this, meaning that the prediction is valid for 90%.

c. Training requirement of livelihood occupants in the entire province is subject to limitations. It is not possible to identify the total number of persons who require specialized skills training in all occupations as there is a large number of persons engaged in the informal sector in the province. The prediction in this study is based on matching the number of persons who have already undergone training with the

observations of the case studies conducted in the two districts. A comprehensive plan for total livelihood occupants in the province requires a population based study in the province. However, the results of this study is valid for the number identified and the kind of skills training they require.

d. Employer feedback based prediction of labour demand in the next five years is subject to a number of limitations. Employers do not express the future demand for labour as well as current demand due to the fear that they will be subjected to taxes. Employers also under-estimate the number of employees in the future due to the fact that they will be compelled to pay Employee Provident Fund and Employee Trust Fund money if they accurately reveal the number of employees. Most employers tend to employ short term and temporary as well as daily labours to avoid paying EPF, ETF and income taxes. This has resulted in a situation where there is no permanent workforce in most of the business establishments. Employers also appear to prefer to use persons who are on training rather than trained employees as they do not need to pay market equivalent higher salaries to the trainees. Response of some businessmen were subjected to their own political opinions. When they are against the incumbent government, they appear to express the view that business is not good and they will have to quit business so that there is no need to recruit new workers in the future. Since most businesses are short term oriented, they do not have any future business plan so that they are unable to provide any employment data for the future. Most establishments have a very current business focus and extremely uncertain expectations about the future operations so that most indicated that they do not need any future increase of employees as they do not have a plan to expand. Therefore, labour demand prediction in the industry sectors should be valid subject to $\pm 10\%$ errors and omissions, meaning that the prediction is valid for 90%.

e. The prediction based on industry growth is subject to the limitations if the assumptions made therein are violated or do not hold due to changes in the economy or industry. Therefore, the predictions should be valid subject to $\pm 10\%$ errors and omissions, meaning that the prediction is valid for 90%.

f. Change of the policies and the structure of the economy affect the ability to implement the plans prepared, so that the proposed actions need to be ratified by the political authority for implementation.

g. A lack of inter-ministerial and inter-institutions cooperation and collaboration tend to affect the accuracy and the efficiency with which these can be implemented.

h. Deficiency of information at institutions level hinders any meaningful planning.

i. A lack of coordination and cooperation has affected the training supply each institution leading to excess demand and excess supply in the NCP.